ANNUAL REVIEW 1985

OF ALBERTA FISH AND WILDLIFE DIVISION

FOR ALBERTA FISH AND GAME ASSOCIATION
CALGARY, FEBRUARY 20-22, 1986

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INTRODUCTION

Dennis C. Surrendi
Assistant Deputy Minister

The 1985-86 program advisory, which provides general direction for Fish and Wildlife services and programs, placed the highest priority on public service responsibilities. In addition, community participation in Divisional activities and programs was a priority, along with continuing emphasis on regulatory reform and deregulation. Wildlife and Fisheries Habitat enhancement also commanded high priority in the 1985/86 program.

In 1985 the Division updated regulations under the Wildlife Act. This initiative is progressing and should be completed within a short time.

Major progress was achieved in respect to waterfowl management at the international level. As a participant in the development of the North American Waterfowl Management Plan, Alberta played a leading role through the capable efforts of the Director of Wildlife, R. Andrews.

Significant progress was made in respect to habitat development and protection. In addition to major re-direction of personnel into the habitat function, streamlining of procedures was instrumental in processing project reviews and approvals. The Honourable Don Sparrow's effort and leadership to increase local and community involvement in habitat programs has, within a very short time, produced significant results. The Habitat Branch reflects a high degree of community interest, participation and achievement.

We have, together, made major strides in securing a better future for wildlife "on the land". I am most encouraged with the co-operation of the Bow River Irrigation District and Eastern Irrigation District in looking upon the presence of wildlife in a positive perspective. The recent acquisition of the Ward Ranch property is an excellent example of inter-agency co-operation and what can be achieved with a strong commitment to co-operation. The Habitat Canada program is an encouraging development that, over time, will no doubt have a positive effect on the wildlife resource across Canada.

While there has been progress on resource issues in 1985, one cannot overlook the enduring benefits of programs like USE RESPECT, Outdoor Observer Hotline, Project WILD and Hunter Education. If Albertans are to continue to have access to private land, in agro-Alberta, community acceptance of and participation in our service programs is a must. Youth involvement such as the 4H USE RESPECT projects are progressive events that we must capitalize on and further develop.

I am sure you are all aware of the major new initiative with respect to the 1985 Hunter Survey. Seventy-nine Fish and Game clubs participated in the program and, together with twenty-two clubs of the Alberta Bowhunters and Archers Association, completed almost 50 000 hunter questionnaires. The program could not have been implemented without the enthusiastic support by your Association's executive and the dedicated effort by your local clubs. I wish to express my sincere appreciation for your support.

The information collected through the survey is extremely valuable. It has now been tabulated and has undergone preliminary analysis to assist in finalizing the season setting deliberations for 1986.

We plan to conduct similar hunter surveys on an annual basis in the future. A number of improvements in the program will be incorporated next year. I certainly hope that the clubs which participated this year will continue to participate and other clubs will become involved.

The Alberta Fish and Game Association has a long history of providing community leadership in respect to the environment and resource conservation. Your representatives have maintained that tradition during the past year and the staff of the Fish and Wildlife Division look forward to 1986 with optimism.

2. PROGRAM SUPPORT

2.1 Special Licence and Authorization Draws

The Special Licence and Authorization Draws continue to be a means of ensuring maximum recreational opportunities while maintaining viable animal populations and limiting the number of hunters on private land.

In 1985, 88 415 applications were received for 20 625 available licences and 14 302 authorizations. The 88 414 applications represented 36 211 individual hunters.

Several changes were introduced in 1985 to improve the draw process and optimize hunter and harvest opportunities.

1. New special licences were created for antlerless mule deer and antlerless elk.

2. Hunters were able to apply for all authorization draws but a $3 fee was charged for application forms. This revenue goes to the Buck for Wildlife Trust Fund.

3. Bowhunters were required to possess an authorization or special licence to hunt any sex or species of big game animal in a pre-rifle bow season where an authorization or special licence was required by rifle hunters for that same sex or species.

4. WMU 116 was included in the Cypress Hills Elk hunt.

5. Goat hunting areas were subdivided to provide more goat hunting opportunities.

6. A person who held a non-trophy antelope licence in 1983 or 1984 could apply for a trophy or non-trophy antelope licence.

In addition to these changes two emergency plans were effected in late August. Due to severe drought conditions in Southern Alberta it was

necessary to realize an adequate harvest of antlerless mule deer. Applicants who were previously unsuccessful in oversubscribed areas were provided the opportunity to reapply in undersubscribed areas. As well, a significant reduction of antelope was required to prevent deterioration of winter range and to reduce crop damage. Again, previously unsuccessful non-trophy antelope applicants were provided the opportunity to reapply.

This ability to be flexible and adjust to unpredictable environmental situations well confirms the efficiency of the current draw system. The Fish and Wildlife Division, however, continues to strive for effective game management. We will continue to review enhancements to meet this demand with additional improvements such as a priority system to be phased in over the next few years.

2.2 General Licence Sales for 1984-85

Total licence sales for 1985/86 are not yet available; however, the following list indicates the number of sales ending June 30, 1985 for wildlife certificates and game stamps.

Wildlife Certificates	149 838
Resident Bird Game	65 355
Resident Pheasant	18 134
Resident General Moose	53 677
Resident General Elk	35 276
Resident General White-Tailed Deer	77 711
Resident General Mule Deer	56 161
Resident Sheep	3 284
Resident Grizzly Bear	1 077
Resident Black Bear	13 188
Resident Cougar	142
Resident Bowhunting	7 996
Resident Trappers	4 528
Duplicate Stamps	1 729
Non-Res. Bird Game	2 201
Non-Res. Pheasant	662
Non-Res. General Antlered Moose	168
Non-Res. General Antlered Elk	217
Non-Res. General Antlered White-Tailed Deer	250
Non-Res. General Antlered Mule Deer	218
Non-Res. Can. Grizzly Bear	7
Non-Res. Can. Black Bear	72
Non-Res. Can. Cougar	3
Non-Res. Can. Wolf	33
Non-Res. Bowhunting	31
Non-Res. Alien Bird Game	834
Non-Res. Alien Pheasant	57
Non-Res. Alien General Antlered Moose	562
Non-Res. Alien Zone One Antlered Moose	296
Non-Res. Alien General Antlered Elk	310
Non-Res. Alien General Antlered White-Tailed Deer	252
Non-Res. Alien General Antlered Mule Deer	177
Non-Res. Alien Grizzly Bear	79
Non-Res. Alien Black Bear	562
Non-Res. Alien Cougar	5
Non-Res. Alien Wolf	232
Non-Res. Alien Bowhunting	71

TABLE 1

1985 SPECIAL HUNTING LICENCES AND AUTHORIZATION DRAWS SUMMARY

Species	Licences Available		Number of Applicants		Success Rate (%)	
	1984	1985	1984	1985	1984	1985
WMU300 Elk	----	700	----	2 581	---	27.1
Goat	32	29	599	527	5.6	6.0
Non-Trophy Sheep	1 345	1 395	2 219	1 932	51.9	55.4
Cypress Hills Elk	80	100	4 120	2 939	2.0	3.5
Camp Wainwright Deer	770	770	2 028	1 679	38.1	46.4
Trophy Antelope	3 800	3 305	6 716	5 126	56.6	64.5
Non-Trophy Antelope	4 035	3 022	1 638	2 277	100.0	89.3
Second Non-Trophy Antelope	5 860	----	3 943	----	83.5	---
Antlerless Elk	----	3 795	----	14 634	---	25.9
Antlerless Mule Deer	----	8 209	----	7 547	---	84.6
Subtotal	15 922	21 325	21 263	39 242	48.24	44.7
Antlerless Elk	2 800	----	20 345	----	13.7	---
Antlerless Mule Deer	12 760	7 787	12 390	10 026	79.1	65.5
Antlered Mule Deer	1 360	1 360	2 742	4 009	49.5	33.9
Antlerless White-Tailed Deer	9 265	250	6 079	683	86.1	36.6
Antlered White-Tailed Deer	450	450	191	674	100.0	66.7
Antlerless Moose	1 586	2 040	19 956	20 658	7.9	9.8
Antlered Moose	4 435	1 715	11 706	8 413	37.9	20.3
WMU300 Elk	700	----	1 443	----	48.5	---
Fall Grizzly Bear	21	21	538	492	3.9	4.2
Spring Grizzly Bear	50	N/A	464	N/A	11.4	N/A
Subtotal	33 427	13 623	75 854	44 955	43.80	33.8
Total	49 349	34 948	97 117	84 197	46.02	39.25

N/A - Not Available at this time
NOTE: Tables 2-17 list success rates by wildlife management unit or area

TABLE 2

1985 MOUNTAIN GOAT APPLICANTS

Zones Available	Licences Available	Applicants	1st Choice	2nd Choice	3rd Choice	Number & % Successful
A	2	86	2	0	0	2 (2.3)
B	2	96	2	0	0	2 (2.0)
C	2	49	2	0	0	2 (4.0)
D	2	29	4	0	0	4 (13.7)
E	2	37	2	0	0	2 (5.4)
F	8	26	9	0	0	9 (34.6)
G	2	18	2	0	0	2 (11.1)
H	4	113	4	0	0	4 (3.5)
I	5	73	5	0	0	5 (6.8)

TABLE 3

1985 NON-TROPHY SHEEP APPLICANTS

Zones Available	Licences Available	Applicants	1st Choice	2nd Choice	3rd Choice	Number & % Successful
402A	25	103	25	0	0	25 (24.2)
404A	40	121	40	0	0	40 (33.0)
406A	40	67	40	0	0	40 (59.7)
408A	25	60	19	6	0	25 (41.6)
418A	21	65	21	0	0	21 (32.3)
422A	45	61	45	0	0	45 (73.7)
434A	116	24	16	4	4	24 (100.0)
437A	30	37	30	0	0	30 (81.0)
404B	40	53	40	0	0	40 (75.4)
406B	50	101	50	0	0	50 (49.5)
408B	60	151	60	0	0	60 (39.7)
418B	23	91	24	0	0	24 (26.3)
434B	48	39	32	3	4	39 (100.0)
437B	30	31	31	0	0	31 (100.0)
306	15	64	16	0	0	16 (25.0)
308	15	71	17	0	0	17 (23.9)

TABLE 3 (continued)

Zones Available	Licences Available	Applicants	1st Choice	2nd Choice	3rd Choice	Number & % Successful
326	5	6	5	0	0	5 (83.3)
328	5	13	5	0	0	5 (38.4)
410	50	158	50	0	0	50 (31.6)
412	25	38	25	0	0	25 (65.7)
420	122	95	53	12	30	95 (100.0)
428	20	25	17	3	0	20 (76.9)
430	75	43	36	7	0	43 (100.0)
432	44	48	36	6	2	44 (91.6)
436	10	34	10	0	0	10 (29.4)
438	75	147	75	0	0	75 (51.0)
439	1	7	1	0	0	1 (14.2)
440	70	77	70	0	0	70 (90.9)
442	150	29	20	6	3	29 (100.0)
444	90	49	42	7	0	49 (100.0)
445	30	23	23	0	0	23 (100.0)

TABLE 4

1985 CYPRESS HILLS ELK APPLICANTS

Zones Available	Licences Available	Applicants	1st Choice	2nd Choice	3rd Choice	Number & % Successful
N05	25	423	26	0	0	26 (6.1)
N12	25	392	26	0	0	26 (6.6)
022	25	1 677	26	0	0	26 (1.5)
022	25	447	25	0	0	25 (5.5)

TABLE 5

1985 CAMP WAINWRIGHT DEER APPLICANTS

Zones Available	Licences Available	Applicants	1st Choice	2nd Choice	3rd Choice	Number & % Successful
D02	130	573	133	0	0	133 (23.2)
D05	130	288	133	0	0	133 (46.1)
D09	130	226	132	0	0	132 (58.4)
D12	130	339	130	0	0	130 (38.3)
N28	250	253	221	9	22	252 (99.6)

TABLE 6

1985 TROPHY ANTELOPE APPLICANTS

Zones Available	Licences Available	Applicants	1st Choice	2nd Choice	3rd Choice	Number & % Successful
A	300	316	221	46	33	300 (94.9)
B	60	228	60	0	0	60 (26.3)
C	515	573	515	0	0	515 (89.8)
D	300	374	300	0	0	300 (80.2)
E	600	650	602	0	0	602 (92.6)
F	530	1 000	530	0	0	530 (53.0)
G	475	1 220	478	0	0	478 (39.1)
H	525	765	525	0	0	525 (68.6)

TABLE 7

1985 NON-TROPHY ANTELOPE APPLICANTS

Zones Available	Licences Available	Applicants	1st Choice	2nd Choice	3rd Choice	Number & % Successful
A	187	92	69	15	8	92 (100.0)
B	35	85	35	0	0	35 (41.1)
C	35	54	36	0	0	36 (66.6)
D	226	164	141	16	7	164 (100.0)
E	809	389	339	45	5	389 (100.0)
F	230	405	230	0	0	230 (56.7)
G	750	627	590	29	8	627 (100.0)
H	750	461	458	1	2	461 (100.0)

TABLE 8

1985 WMU300 ELK APPLICANTS

Zones Available	Licences Available	Applicants	1st Choice	2nd Choice	3rd Choice	Number & % Successful
D30	300	1 336	300	0	0	300 (22.4)
028	200	624	200	0	0	200 (32.0)
S04	200	621	200	0	0	200 (32.2)

TABLE 9

1985 ANTLERLESS ELK APPLICANTS

Zones Available	Licences Available	Applicants	1st Choice	2nd Choice	3rd Choice	Number & % Successful
302	200	625	200	0	0	200 (32.0)
304	120	1 309	120	0	0	120 (9.1)
305	290	721	290	0	0	290 (40.2)
306	125	274	125	0	0	125 (45.6)
308	250	1 644	250	0	0	250 (15.2)
310	275	450	275	0	0	275 (61.1)
312	325	864	325	0	0	325 (37.6)
314	100	575	100	0	0	100 (17.3)
351	100	230	99	4	0	103 (44.7)
354	100	722	101	0	0	101 (13.9)
356	100	769	100	0	0	100 (13.0)
357	25	131	25	0	0	25 (19.0)
358	100	578	100	0	0	100 (17.3)
359	25	175	25	0	0	25 (14.2)
400	245	991	245	0	0	245 (24.7)

TABLE 9 (continued)

Zones Available	Licences Available	Applicants	1st Choice	2nd Choice	3rd Choice	Number & % Successful
402	375	1 593	375	0	0	375 (23.5)
404	290	903	290	0	0	290 (32.1)
406	400	1 049	400	0	0	400 (38.1)
408	200	610	200	0	0	200 (32.7)
521	100	116	100	0	0	100 (86.2)
522	25	191	25	0	0	25 (13.0)
526	25	114	25	0	0	25 (21.9)

TABLE 10

1985 ANTLERLESS MULE DEER LICENCE APPLICANTS

Zones Available	Licences Available	Applicants	1st Choice	2nd Choice	3rd Choice	Number & % Successful
102	623	227	222	3	2	227 (100.0)
104	308	250	219	31	0	250 (100.0)
106	155	109	69	33	7	109 (100.0)
108	268	398	268	0	0	268 (67.3)
110	165	177	162	3	0	165 (93.2)
112	155	137	109	22	6	137 (100.0)
116	393	211	205	6	0	211 (100.0)
118	370	93	93	0	0	93 (100.0)
119	308	142	139	2	1	142 (100.0)
124	108	64	61	2	1	64 (100.0)
128	111	120	110	3	0	113 (94.1)
130	45	97	45	0	0	45 (46.3)
138	93	75	41	6	28	75 (100.0)
140	45	26	17	3	6	26 (100.0)
142	93	46	35	5	6	46 (100.0)
144	93	16	14	1	1	16 (100.0)

TABLE 10 (continued)

Zones Available	Licences Available	Applicants	1st Choice	2nd Choice	3rd Choice	Number & % Successful
148	245	198	194	4	0	198 (100.0)
150	570	352	325	18	9	352 (100.0)
151	550	604	551	0	0	551 (91.2)
152	550	569	582	0	0	552 (97.0)
160	350	775	351	0	0	351 (45.2)
162	200	258	106	64	30	200 (77.5)
164	350	375	350	0	0	350 (93.3)
166	250	262	250	0	0	250 (95.4)
200	525	312	244	48	20	312 (100.0)
202	500	511	380	80	40	500 (97.8)
204	100	167	100	0	0	100 (59.8)
206	100	109	100	0	0	100 (91.7)
208	450	468	388	36	29	453 (96.7)
230	50	120	50	0	0	50 (41.6)
232	36	112	36	0	0	36 (32.1)
234	50	167	50	0	0	50 (29.9)

TABLE 11

1985 ANTLERLESS MULE DEER AUTHORIZATION APPLICANTS

Zones Available	Licences Available	Applicants	1st Choice	2nd Choice	3rd Choice	Number & % Successful
300	125	147	125	7	0	125 (85.0)
302	750	306	259	31	16	306 (100.0)
304	750	1 477	750	0	0	750 (50.7)
305	1 500	1 029	640	254	135	1 029 (100.0)
306	190	193	190	0	0	190 (98.4)
308	560	560	560	0	0	560 (100.0)
310	150	267	150	0	0	150 (56.1)
312	350	398	350	0	0	350 (87.9)
314	100	359	100	0	0	100 (27.8)
334	45	180	45	0	0	45 (25.0)
336	110	281	110	0	0	110 (39.1)
132	245	131	67	40	24	131 (100.0)
134	185	142	127	9	6	142 (100.0)
136	215	65	17	3	6	26 (100.0)
156	215	65	34	19	12	65 (100.0)
158	200	357	210	0	0	201 (56.3)
508	42	153	42	0	0	300 (51.4)

TABLE 11 (continued)

Zones Available	Licences Available	Applicants	1st Choice	2nd Choice	3rd Choice	Number & % Successful
210	150	254	150	10	0	150 (59.0)
214	150	162	150	0	0	150 (92.5)
216	200	248	200	0	0	200 (80.6)
220	300	511	300	0	0	300 (58.7)
221	50	87	50	0	0	50 (57.4)
222	75	99	55	21	0	76 (76.7)
224	175	178	175	0	0	175 (98.3)
226	50	59	50	0	0	50 (84.7)
228	50	221	51	0	0	50 (23.0)
242	20	165	20	0	0	20 (12.1)
244	12	48	12	0	0	12 (25.0)
246	24	47	24	0	0	24 (51.0)
250	24	80	24	0	0	24 (30.0)
400	185	190	142	0	0	185 (97.3)
402	185	338	185	0	0	185 (54.7)
404	50	148	50	0	0	50 (34.4)
406	250	478	250	0	0	250 (52.3)
408	20	88	20	0	0	20 (22.7)

TABLE 12

1985 ANTLERED MULE DEER APPLICANTS

Zones Available	Licences Available	Applicants	1st Choice	2nd Choice	3rd Choice	Number & % Successful
102	280	1 201	280	0	0	280 (23.3)
104	140	375	140	0	0	140 (37.3)
106	70	93	71	0	0	71 (76.3)
108	120	718	120	0	0	120 (16.7)
404	200	419	200	0	0	200 (47.7)
406	500	1 037	500	0	0	500 (48.2)
408	50	166	50	0	0	50 (30.1)

TABLE 13

1985 ANTLERLESS WHITE-TAILED DEER APPLICANTS

Zones Available	Licences Available	Applicants	1st Choice	2nd Choice	3rd Choice	Number & % Successful
404	30	206	30	0	0	30 (14.5)
406	200	389	200	0	0	200 (51.4)
408	20	88	20	0	0	20 (22.7)

TABLE 14

1985 ANTLERED WHITE-TAILED DEER APPLICANTS

Zones Available	Licences Available	Applicants	1st Choice	2nd Choice	3rd Choice	Number & % Successful
404	100	144	100	0	0	100 (69.4)
406	300	421	300	0	0	300 (71.2)
408	50	109	50	0	0	50 (45.8)

TABLE 15

1985 ANTLERLESS MOOSE APPLICANTS

Zones Available	Licences Available	Applicants	1st Choice	2nd Choice	3rd Choice	Number & % Successful
300	6	96	6	0	0	6 (6.2)
302	10	333	5	0	0	5 (1.5)
304	240	2 024	240	0	0	240 (11.8)
305	30	243	30	0	0	30 (12.3)
306	70	407	70	0	0	70 (17.1)
308	70	1 823	70	0	0	70 (3.8)
310	100	535	100	0	0	100 (18.6)
312	250	684	250	0	0	250 (36.5)
314	40	750	40	0	0	40 (5.3)
320	65	1 038	65	0	0	65 (6.2)
322	30	260	30	0	0	30 (11.5)
324	50	709	50	0	0	50 (7.0)
332	50	1 127	50	0	0	50 (4.4)
337	10	535	10	0	0	10 (1.8)
337	215	65	34	19	12	65 (100.0)
338	13	1 141	14	0	0	14 (1.2)

TABLE 15 (continued)

Zones Available	Licences Available	Applicants	1st Choice	2nd Choice	3rd Choice	Number & % Successful
348	21	1 249	21	0	0	21 (1.6)
500	25	237	25	0	0	25 (10.5)
502	20	123	20	0	0	20 (16.2)
504	100	636	101	0	0	101 (15.8)
506	100	434	100	0	0	100 (23.0)
507	100	608	100	0	0	100 (16.4)
509	100	227	100	0	0	100 (44.0)
510	240	1 072	240	0	0	240 (22.3)
400	5	1 105	5	0	0	5 (0.4)
402	20	1 562	20	0	0	20 (1.2)
404	50	462	50	0	0	50 (10.8)
406	225	1 142	225	0	0	225 (19.7)
408	5	96	5	0	0	5 (5.2)

TABLE 16

1985 ANTLERED MOOSE APPLICANTS

Zones Available	Licences Available	Applicants	1st Choice	2nd Choice	3rd Choice	Number & % Successful
300	20	75	20	0	0	20 (26.6)
302	10	234	10	0	0	10 (4.2)
304	340	1 123	340	0	0	340 (30.2)
305	40	148	40	0	0	40 (27.0)
306	100	265	100	0	0	100 (37.7)
308	70	1 396	70	0	0	70 (5.0)
310	150	293	150	0	0	150 (51.1)
312	400	460	400	0	0	400 (86.9)
314	125	547	125	0	0	125 (22.8)
400	10	910	10	0	0	10 (1.0)
402	100	836	100	0	0	100 (11.9)
404	100	475	100	0	0	100 (21.0)
406	300	1 056	300	0	0	300 (28.4)
408	20	84	20	0	0	20 (23.8)

TABLE 17

1985 FALL GRIZZLY BEAR APPLICANTS

Zones Available	Licences Available	Applicants	1st Choice	2nd Choice	3rd Choice	Number & % Successful
356	4	157	4	0	0	4 (2.5)
357	3	24	3	0	0	3 (12.5)
326	4	24	4	0	0	4 (16.6)
440	1	146	1	0	0	1 (0.6)
441	1	5	1	0	0	1 (20.0)
442	2	82	2	0	0	2 (2.4)
444	2	29	2	0	0	2 (6.8)
445	2	15	2	0	0	2 (13.3)
446	2	10	2	0	0	2 (20.0)

3. RESOURCE ECONOMICS AND ASSESSMENT

The Resource Economics and Assessment Section was created following Fish and Wildlife Division's reorganization in 1982. Reporting to the Assistant Deputy Minister's office, the Section provides various types of support functions to Division executive, headquarter Branches and regional operations.

The responsibilities of the Resource Economics and Assessment Section are generally three-fold. First, the Section provides support to Division management on technical matters associated with program planning and evaluation, as well as advising on cost-effectives and public benefits associated with alternative forms of program delivery. Second, it supports the resource management and operations sectors by advising on methodological matters and the development of automated data processing capability, assisting in the analysis of data generated through research activities. Third, independent initiatives are undertaken by the section to provide a basis for the socio-economic valuation of fish and wildlife resources.

Some of the major areas in which Resource Economics and Assessment has recently been involved include:

- continued representation on the Federal-Provincial National Survey on the Value of Wildlife to Canadians;

- analytical support for the 1984 and 1985 Big Game Harvest Surveys;

- completion of a joint study examining the potential economic impacts on fish and wildlife resources resulting from various agricultural land base expansion or intensification scenarios;

- participation in an economic study of angling activity on the Bow River during the summer of 1985;

- in-depth analysis of the demographic composition of the licensed hunting population over the past 11 years;

- examination of the economic aspects of the put-and-take pheasant hunting underway following the 1985 season;

- support for fish and wildlife participation in the development of integrated resource plans;

- support on resource management research programs, including detailed analysis of the 1983 Game Bird Harvest Survey, Wainwright Deer Study, Sturgeon Angling Survey and related studies.

4. WILDLIFE MANAGEMENT

The Wildlife Management Branch structure is comprised of four sections: Administration; Game Management; Fur Management and Technical Services; and the Brooks Wildlife Centre. The Game Management Section is divided into three units: Ungulate Management; Waterfowl and Upland Game Bird Management; and Carnivore Management. Three units make up the Fur Management and Technical Services Section: Fur and Non-Game Management; Wildlife Resource Inventory; and Research and Laboratory Services. The Brooks Wildlife Centre is composed of three units: Hatchery/Broodstock; Rearing; and Inventory/Maintenance.

The main thrust over the last year and one-half by the Wildlife Branch has been in the areas of international waterfowl planning, drawing up species management plans for elk, moose, sheep, caribou, deer and pheasants, updating the problem wildlife policy, developing a telephone hunter questionnaire, a fur management plan, a threatened species management paper and a non-game strategy paper. The programs outlined in the following section reflect some of these initiatives.

4.1 Ungulate Management

White-tailed Deer

White-tailed deer populations continued to be high in the foothills, aspen parkland and prairie regions in Alberta in 1984 and 1985 in spite of drought conditions and a severe winter last year. There were 77 711 resident and 502 non-resident white-tailed licenses sold in 1984, resulting in an estimated harvest of 23 000 deer. Winter started early in 1984 and the low temperatures combined with heavy snowfall prompted a winter feeding program that started early in February 1985 in some areas. Thanks to the help of over 400 volunteers, many of them Fish and Game members, the feeding program reached about 7 000 deer, including both white-tailed and mule deer. The severe winter and a continuing drought in the south lowered the deer population but hunting prospects were still excellent in 1985. More liberal white-tail seasons in the southern prairie area in 1985 were designed to further reduce deer populations to increase their survival on drought stricken winter ranges and assist landowners by reducing crop damage.

Mule Deer

Mule deer were abundant in suitable habitat in the southern foothills and prairie regions while northern populations remained low in 1984 and 1985. THere were 55 161 Albertans and 395 non-residents licensed to hunt mule deer in 1984, resulting in an estimated harvest of 14 000 deer. The 3-point male mule deer restriction protects some of the antlered bucks for breeding purposes in areas where most if not all antlered bucks would be shot if the season was open. The other alternative for protecting bucks, a male mule deer draw, would limit where hunters could go and the number of licensed mule deer hunters each year would be greatly reduced.

The severe winter and southern drought also lowered mule deer populations but they were still abundant and the 1985 hunting opportunities were very good. Permit numbers for authorization and special licence draws were increased in the drought stricken areas to lower populations about 25 percent. This lowers competition for food and increases survival of the remaining deer while lowering crop damage to assist landowners.

Moose

Moose populations continue to increase in central and west-central regions of the province. Wolf and bear predation is still the major limitation to northern moose herds. Those in the south remain highly productive in the absence of predators, ticks and severe winter weather. Hunter success improved again in 1984 with reports of locally high success rates on bulls. According to the 1984 big game questionnaire, a total of 7 663 moose were harvested by residents who used their general moose licence. In addition, 1 046 moose were harvested by people who hold male or female moose authorizations.

Moose is still one of the most abundant and sought after species in Alberta. A total of 54 407 hunters attempted to bag a moose during the 1984 hunting season.

Elk

There continues to be a great demand for elk hunting in Alberta; 35 883 licences were sold in 1984, of which 527 were to non-residents. Estimated harvest in 1984 was 2 513.

Populations south of the Bow River have higher production and survival because of maintenance of grassy, winter ranges and fewer predators. In central and northern parts of western Alberta numbers of calves/100 cows at birth ranges from 20 to 40 where maturing forests of lodgepole pine and dwarf birch continue to reduce winter ranges.

In 1986, WMUF304 was divided into two units to effect greater harvests of elk in the southern half of the Porcupine Hills. The number of anterless authorizations in WMUs from Waterton to the upper Oldman River was increased by 10% to help reduce elk-cattle competition aggravated by drought. A general 3-day open season on antlerless elk was allowed in Big Game Zones 3 and 13.

Elk were trapped and relocated to three areas in 1985 - Prospect Creek, Smoky River and Athabasca River.

Pronghorn Antelope

Pronghorn numbers in 1984 were estimated to be about 29 000 before the hunt, well in excess of the provincial goal of 15-18 000 after the fall hunt. Liberal permit numbers, 3 800 trophy and 4 620 non-trophy, in 1984 followed by a tough winter reduced the herd to about 22,000 in 1985 before the hunt. There were 3 305 trophy and 2 035 non-trophy licences issued in 1985. Non-trophy permits were undersubscribed in 1984 and 1985 so an additional draw was held in 1984 and 2 tags were issued in some zones in 1985. Bad weather in 1984 lowered success rates, particularly in hunting areas G and H, but early returns indicate normal success rates in the 75 percent range in 1985. Many good trophies were taken in both years.

Mountain Goats

The goat population in Alberta still stands at about 2 000. Those goat herds in southern Alberta appear to be increasing at a slow but steady pace. Aerial surveys of the southern areas are planned for the summer of 1986 in order to verify numbers and distribution.

Aerial surveys over the areas north of Highway 16 in 1985 indicated a reduction in production and survival of last year's kids. These reductions were likely due to the long hard winters experienced in the areas in 1984-85. Results indicated 23 kids per 100 adult females and a kid survival rate to one year of 34 percent or 9 yearling per 100 adult females. Thirty-two goat permits were issued in 1984, which resulted in 8 goats being harvested for a hunter success rate of 25 percent. The low success rate was attributed to the inability of the hunters to get into the area because of poor weather conditions.

In 1985 the hunting areas were redefined, resulting in the addition of 3 areas. Twenty-nine permits were allocated in 1985 with a harvest to date of 6.

Bighorn Sheep

Estimates of bighorn sheep on provincial land are placed at about 6 000, with another 4 000 in the national parks. Poor survey conditions in 1984/85 prevented any surveys from being flown. However, surveys were conducted over the range in southern Alberta which experienced a major die-off in 1982. Numbers of sheep appear to have stabilized, but the winter lamb crop was still very low.

In 1984, 3 284 trophy sheep licences and an additional 93 non-resident and non-resident alien licences were sold. This is an increase of 306 licences over 1983. A total of 262 trophy rams were registered, 7 more than in 1983. The number of non-trophy sheep permits issued in 1984 was 1 131, up from 124 in 1983. The total kill of non-trophy sheep was estimated from hunter questionnaire returns at 387 animals, compared to 221 in 1983.

4.2 Bird Game Management

Waterfowl

Following a spring of normal runoff, May pond numbers were the highest in five years and reached the long-term average. The number of breeding ducks did not respond to improved water conditions, however, and the number of returning nesters remained well below the long-term average. Spring rains contributed by helping to replenish water levels in the semipermanent and permanent wetlands.

Alberta and the other two Prairie provinces joined the four U.S. flyways in implementing hunting restrictions designed to reduce the mallard harvest by 25%. The 1985 fall flight was much below that enjoyed during 1969-1976, and was little better than those of the five preceding drought-reduced seasons. Hunting conditions varied from fair to poor throughout the province during the fall, which ended in early November in most parts of Alberta. Overall, hunting opportunity and harvest continued the downward trend evident since 1980.

Alberta's breeding population of large Canada geese was also affected by dry spring conditions, especially in the south where some former nesting islands remained high and dry or separated from the mainland by only shallow water. Breeding pair surveys indicate that the population growth experienced in recent years has stabilized, due in large part to saturation of the available breeding habitat remaining. Gosling surveys on major nesting lakes and the southern rivers showed production to be the highest since 1980. Northern production of Arctic-nesting snow, white-fronted and lesser Canada geese was average or above, with the southward migration slightly earlier than normal in some parts of the province. Greatly improved late summer water conditions in the major east-central staging area resulted in the best build-ups or concentrations of the 1980's, and fall rains even improved some local situations.

Slightly over 1 000 resident Canada geese in southern Alberta were drive-trapped and banded. In addition, over 200 goslings with adults were banded during the Greenwing and transplant program and most were moved onto habitat improvement projects in the central part of the province.

A final draft of a management plan for the Rocky Mountain population of large Canada geese (whose nesting range extends into south-central and central Alberta) has been completed in co-operation with wildlife agencies in the Pacific and Central flyways. Also nearing completion for the Pacific flyway are management plans for trumpeter swans, Ross geese and snow geese. Final drafts of the co-operative management plans for Hi-Line and Shortgrass Prairie Canada geese and Western white-fronted geese have now been completed for the Central flyway populations.

A public review draft of the North American Waterfowl Management Plan has been released for public comment. A fifth draft of the provincial plan for Alberta waterfowl populations was completed early in 1985.

Upland Game Birds

Gray (Hungarian) Partridge

Fall populations of partridge were somewhat lower than those of 1984 partially as a result of drought conditions through southern and central Alberta.

Ring-necked Pheasants

The loss of good wintering cover associated with irrigation upgrading, coupled with the winter of 1984-85, caused a decline in numbers of breeding birds in spring, 1985. Although weather conditions were not unfavorable during peak hatch in June, production in the wild was similar to the average population in 1984. The young (less than 10 weeks of age) males shot during the hunting season indicated many initial nests were lost

sometime during incubation. This decline is the result of the ongoing loss of habitat, primarily as a result of upgrading of irrigation systems which removes valuable cover.

In 1985, 98 900 pheasants were released from the Brooks Wildlife Centre, as day-old, 6-week-old or 16-week-old-plus birds. Nearly 32 000 chicks were distributed to 4-H families, individuals and fish and game clubs. Over 66 800 mature-sized pheasants 16 weeks and older were released during late summer and autumn in southern and central Alberta to provide additional hunting opportunities, supplement local wild populations and provide incentives for landowners to retain wildlife cover. More release areas for the purposes of put-take hunting were identified and utilized in the Wetaskiwin, Drayton Valley and Edson areas, particularly on provincial grazing reserves. Additional sites on reserves will be identified for the 1986 hunting season.

Ruffed Grouse

Based on sporadic surveys, results of the Camp Wainwright grouse hunt and hunters' reports, the upward trend in ruffed grouse numbers is continuing. During the Camp Wainwright hunt, 76 ruffed grouse were shot, of which 3.75 juveniles were taken for every adult bird shot.

Sage Grouse

Survey efforts in 1985 concentrated on counts of males on strutting grounds in spring, selection of cover by sage grouse in summer and on hunter check stations. During November, 1985, extremely cold weather reduced the number of sage grouse hunters. Only 45 hunters were contacted, reporting 20 birds taken.

Sharp-tailed Grouse

Spring surveys on arenas, or dancing grounds, indicated a slight increase in the breeding population from 1984. During the Camp Wainwright hunt, 203 hunters shot 319 sharptails during the one-week season. The ratio of juveniles to adult females was 3.1 to 1. This ratio is slightly reduced from 1984 but still excellent given the intense disturbance in the camp during nesting in 1984.

In the St. Paul area, some Buck For Wildlife projects sponsored by local fish and game clubs have been completed. The effectiveness of the fencing projects in protecting and developing sharptail cover on provincial grazing reserves will be evaluated in 1986-1987.

Wild Merriam's Turkeys

Recent reports from Pincher Creek indicate that the Porcupine Hills wild turkeys have extended their range to south of Highway 3. Sightings are being investigated. Winter feeding sites have been maintained by local fish and game clubs and requests have been received for two additional feeders. The possibility of a spring "gobbler" hunt is being considered.

4.3 Carnivore and Problem Wildlife Management

Major activities during the year included evaluation of wolf predation of big game, review of policies and programs relating to wildlife damage, monitoring of rabies in skunks and bats and related epidemiological studies, and initiation of a management plan for elk.

The Nordegg wolf/big game project was continued during the year. Numbers of wolves and their kills were monitored. Densities during winter were 1 wolf/80-102 km^2 and 1 wolf/175-246 km^2 in the two pack territories. Mule deer and moose continued to be that most important summer and winter foods of the Baldy Pack of 9-7-10 wolves. During 62 days they made a kill every 4.8 days. Elk continue to be the most important food of the Blackstone Pack of 14-10-13 wolves. At one kill every 2.6 days, the pack takes 140-150 ungulates of five species annually. Predation by the Blackstone Pack is the major limitation on elk in this area.

A draft review of wildlife damage policies and program summarizes current management and recommends continuance of or modification to existing programs. Programs were priorized within each species or animal group with preventive techniques such as population and habitat management, fencing and intercept feedings as the highest priority, followed by compensation, and finally animal control.

A report on mortalities of grizzlies in Alberta during 1972-84 was completed as part of an analysis of grizzly bear management.

Rabies unit personnel continued to monitor the prevalence of rabies and investigate the biology of free-ranging skunks and bats. A total of 280 bats (240 little browns, 31 big browns, 3 silver-haired, 1 eastern long-eared) were collected during random surveys through the province. All specimens were rabies-negative. Activity of big brown bats in the Stony Plain area was monitored during a radio-telemetry program. Three of 314 skunks (1%) collected in southern Alberta were rabies-positive. Rabid skunks were limited to a focal area near Coutts.

Preliminary investigation of the potential of vaccinating skunks against rabies was initiated. A fatal case of rabies in a man in Vancouver may have been associated with a bat in northern Alberta. Extensive public education programs were undertaken throughout the year by rabies personnel.

4.4 Furbearer Management

Revenue from wild furs produced in Alberta increased somewhat from 1983-84 to 1984-85, from $5.7 million to $6.9 million. Pelt prices generally increased or remained stable (see attached table); however, mink and muskrat populations remained low, as did populations of some forest-dwelling species (e.g., lynx, coyote, fisher), hence the total wild fur production remained well below the long-term peak ($15.6 million) which occurred in 1979-80. Low to moderate prices for beaver and squirrel also contributed to this trend.

Overall, favourable trends in fur prices and production should continue into 1985-86. Improved water regimes will likely result in increased muskrat and mink populations. Likewise, red squirrel production should increase, reflecting reasonable crops of spruce cones during the past season. Fisher, marten, and lynx remain in extremely high demand (record prices) and care is required to prevent over-harvesting of these species.

Attendance at trapper education courses was down from the year before; 366 students attended 22 basic trapper education courses. An additional 12 students completed the advanced course, which was held again at the Hinton Forestry School. The basic courses offered for the 1985-86 season will be essentially the same as the year before. However, changes to the advanced course will occur. In addition, a new Western Canadian Trapper Instructor course will be conducted for the first time, as fur managers from Western Canada felt it desirable to develop and promote a uniform program that stresses humane trapping, fur handling and fur management concepts. Five workshops stressing wolf control were conducted last season. Snares were again provided to those who attended the workshops.

The Trapper Compensation Program has continued to resolve conflicts between trappers and industry. During the past season (1984-85) 50 claims were again reviewed by the Trapper's Compensation Review Board. With the increased activity in oil and gas exploration and development, an increased number of claims is anticipated in 1985-86. Initiatives were also taken to reduce conflicts between the timber industry and wild fur industry.

Research and development of humane trapping systems remained a high priority in the fur management unit during 1985. Staff remained involved in the program at the Alberta Environmental Centre-Vegreville. Facilities development for that major interdisciplinary trap testing program (in cooperation with the Fur Institute of Canada) is now complete, and testing of killing traps for mink, marten, and raccoon is underway. The program at Vegreville will concentrate on killing traps for the next several years. Accordingly, the Fur Management Unit initiated a companion program of field testing live holding devices in 1985. This two-year program is concentrating on testing of series of legsnares and modified leghold traps for coyotes and wolves. Objectives of the program are to compare the new traps to the conventional leghold trap, for both catch efficiency and physical damage to the trapped animals. This scientific program will provide much needed information, and is a fairly high priority, as killing traps cannot be used for all species or in all situations. Nevertheless, development and implementation of improved trapping systems remains essential for the continued well-being of the wild fur industry.

Table 18

ALBERTA 1984-85 FUR PRODUCTION RECORDS

	No. of Pelts	Mean Price Per Pelt	Total $ Value
Badger	1 459	21.79	$ 31 791.61
Beaver	60 691	25.75	1 562 793.25
Black Bear	153	56.11	8 584.83
Bobcat	35	233.67	8 178.45
Coyote	37 654	61.39	2 311 579.06
Ermine/Weasel	16 839	2.52	42 434.28
Fisher	2 850	186.66	531 981.00
Fox (Blue)	2	30.00	60.00
Fox (Silver)	92	32.18	2 960.56
Fox (Cross)	536	101.88	54 607.68
Fox (White)	8	25.00	200.00
Fox (Red)	3 210	37.08	119 026.80
Lynx	1 279	598.27	765 187.33
Marten	17 196	54.94	944 748.24
Mink	2 999	31.38	94 108.62
Muskrat	79 970	2.81	224 715.70
Otter	277	40.54	11 229.58
Rabbit	-	-	-
Raccoon	153	20.74	3 173.22
Skunk	12	2.00	24.00
Squirrel	120 332	.94	113 112.08
Wolf	381	80.07	30 506.67
Wolverine	89	225.80	20 096.20
	312 913	Total	$6 881 099.16
		*Castorium	576 150.40
		Overall Total	$7 457 249.55

Registered Trappers - 3 007

Resident Trappers - 4 167

*Average of 6 beaver/lbs. @ average price of $56.95/lbs.

4.5 Non-game Management

Much of the non-game unit efforts were concentrated on completing a divisional policy for the management of threatened wildlife. A draft policy paper has been distributed to the Fish and Wildlife Advisory Council for comment.

Considerable effort has gone into developing a Non-game Wildlife Program Plan which is expected to be completed early in 1986.

Peregrine Falcon

A pair of peregrine falcons established a nest site at the Edmonton AGT Toll Building again this year. The pair, a 3-year-old male and a 5-year-old female, paired in 1984 after the original male failed to return to the site in the spring of 1984. Two clutches of 4 and 3 eggs were laid. The pair were induced to lay the second clutch after monitoring revealed that the first clutch eggs were thin shelled and subsequently cracking. Artificial incubation techniques failed to hatch any of the first clutch eggs. All three eggs in the second clutch hatched, two young successfully fledged, the third young died after colliding with a building.

The pair of birds that nested in Calgary on the Shell Building last year relocated back to the AGT Toll Building. Four eggs were laid, two were infertile and two contained embryos that failed to hatch. Two captive-raised young falcons from the Canadian Wildlife Service Facility were fostered to the pair. Both young falcons successfully left the nest.

Alberta Government Telephones (AGT), along with the Alberta Fish and Wildlife Division, provided a well-received public information display which included live closed-circuit TV coverage of the nesting activities in Edmonton and Calgary. The program received added support from the John Jansen Nature Centre in Edmonton and the City of Calgary Parks and Recreation Department (their naturalists provided information to the public).

Two peregrine falcon releases were conducted in central Alberta. Ten captive-raised young falcons were released (two were cross-fostered to prairie falcons and eight were released using a hacking technique, without adults in attendance). All 10 captive-raised young falcons successfully fledged.

The remnant peregrine population in northern Alberta dropped slightly this year with five breeding pairs located. Contract field personnel conducted a complete monitoring program in 1985. Eighteen eggs were laid and 11 hatched. Total production was enhanced by fostering eight captive-raised young to pairs with nests. Eighteen of the 19 young falcons fledged.

Swift Fox

Eight Swift Fox were transferred to the release area south of Medicine Hat in January, 1985 for release during the fall. The monitoring of foxes released in 1983 and 1984 or born in the wild continues year round using radio telemetry. The Fish and Wildlife Division is assisting the University of Calgary and CWS personnel with the monitoring program.

Ferruginous Hawk

Studies continued in 1985 to determine overwintering survival and breeding population recruitment rates of both Ferruginous and Swainson's Hawks. This work was conducted by a wildlife researcher funded and assisted by the Alberta Parks and Wildlife Foundation, Environment Canada (Environment 2000), Special Areas Board and the Alberta Fish and Wildlife Division. The project was located on a study area south of Hanna where intensive monitoring has been conducted for a number of years. This project is scheduled to continue to 1988, as is the evaluation of artificial nesting structures by prairie buteos and other avian species. To date, 67 adult and 415 juvenile Ferruginous Hawks and 172 adult and 345 juvenile Swainson's Hawks have been captured, marked and released.

Osprey

A June survey in the vicinity of the Brazeau Dam located 15 sites occupied by pairs of Osprey. A survey in July found two of these sites had failed when the nest trees fell down and five others were abandoned. The remaining nine pairs raised 17 young.

Nine artificial nest platforms were erected in the fall of 1984 by Fish and Wildlife and Trans Alta personnel. Three nesting poles were occupied by Osprey in 1985. One pair hatched one young which did not survive and the other two pole attempts failed. A plan is in preparation to cut the tops of some dead standing trees located within 200 meters of nesting attempts made in 1985. This would be a temporary solution to aid in determining the need for further establishment of artificial nesting poles.

Falconry

Falconry permits increased in 1985, with eight falconry and three propogation permits issued. The new falconry regulations have yet to be finalized, although they are expected to be completed early in 1986 as an integral part of the Wildlife Regulations under the Wildlife Act.

Threatened Wildlife

The Fish and Wildlife Policy for Alberta states "the primary consideration of the Government is to ensure that wildlife populations are protected from severe decline and that viable populations are maintained." The chief management goal for the threatened wildlife unit is to restore populations in Alberta to viable levels. The purposes of the proposed Threatened Wildlife Management Policy are: 1) to adopt a system to identify threatened wildlife; 2) to rank species into categories which reflect the degree of threat; and 3) to recommend management actions for threatened wildlife. In this paper, threatened wildlife are those species which are designated as vulnerable, threatened, endangered or extirpated. Species which are jeopardized by the actions of man receive particular attention. A relatively simple scoring and ranking system was adopted and eleven species of wildlife are proposed as threatened within Alberta.

Scarce Species

During the preparation of the Land Use Planning and Program Priorities document over 440 wildlife species found within the jurisdiction of the Alberta Fish and Wildlife Division were examined. The purpose was to determine their scarcity and sort them so a priority rating could be assigned. Three levels of scarcity were identified in addition to the categories of not scarce, vagrant and exotic. The criteria used to determine these rankings were based on the estimated Alberta population of a species, its range in Alberta and the spatial distribution within its range. One hundred and six non-game species were ranked within the scarce categories in addition to the 11 species previously identified as threatened in the proposed Threatened Wildlife Management Policy. The species are classified as exceptionally scarce (20 sp.), very scarce (45 sp.), and scarce (41 sp.). The remaining non-game species are listed as not scarce (195 sp.), vagrant (47 sp.) and exotic or not native to Alberta (5 sp.). Expansion of the data base on individual wildlife species will necessitate an update of these classifications as new information becomes available.

4.6 Wildlife Resource Inventory - 1985

A primary focus of the Wildlife Resource Inventory Program during the past year has been the preparation of prototype resource status assessments for two map sheets at the reconnaissance inventory scale of 1:250,000 (4mi = 1in). Documentation on the status of habitats and populations for seven wildlife species has been completed for the Rocky Mountain House map sheet. Similar assessments are currently in progress for nine wildlife species within the Wapiti map sheet area south of Grande Prairie. This second area will be completed in September 1986.

Status assessments are conducted using an hierarchical classification and mapping of landscape features. The resulting habitat district map is developed largely from existing land inventory and remote sensing products, including satellite imagery. Standardized procedures are being developed for the assessment habitat quality (4 class rating) for several different wildlife species using the common habitat district map framework.

The results of these prototype studies will be used to propose a province-wide inventory and assessment for several selected wildlife species. An operational project would assess 43 map sheet areas over a 4-5 year period at the 1:250,000 map scale. This project is designed to consolidate existing resource supply data into a common information management framework which will facilitate a variety of planning and management activities. A modest amount of field data would be collected to standardize interpretations, verify the quality of existing data and fill in data gaps. To ensure effective use and updating of the resulting assessments, the project is designed to be supported by the Computer Graphics Mapping System recently installed in Alberta Energy and Natural Resources.

In addition to developing a province-wide inventory project, the Wildlife Resource Inventory Program coordinates the input of Fish and Wildlife Division interests to a variety of other departmental and inter-departmental natural resource inventory programs. Divisional considerations are also provided on the development of land-related computer information systems within the Department.

4.7 Population Inventory

Population indices (ie. relative species abundance, distribution and sex/age composition) as provided by aerial inventories form the basic framework for species management strategies.

During the 1985 calendar year, excluding December, the provincial inventory program used 935.8 aircraft hours to obtain data on a wide variety of game and non-game species and their habitat.

Table 19 outlines categorized aircraft tools per species as reported to November 30, 1985.

Table 19

AIRCRAFT HOURS FOR PROVINCIAL POPULATION INVENTORY PROGRAM 1985

	BIG GAME							BIRD GAME		CARNIVORE			FUR/NON-GAME						
MODE	MOOSE	ELK	DEER	ANTELOPE	SHEEP	GOAT	UNGULATE	MIGRATORY	UPLAND	WOLF	GRIZZLY	COUGAR	RAPTOR	CARIBOU	BISON	SWAN	PELICAN	LAND USE	TOTAL
Rotary-Wing	59.2	59.9	64.1	0.0	29.7	28.8	26.6	0.0	0.0	145.3	0.0	0.0	0.0	25.1	11.1	1.0	0.0	12.6	463.4
Fixed-Wing	36.3	8.9	29.3	54.9	7.2	0.0	4.0	50.0	23.5	82.2	0.0	93.3	8.8	14.7	0.0	4.6	2.9	51.8	472.4
Total	95.5	68.8	93.4	54.9	36.9	28.8	30.6	50.0	23.5	227.5	0.0	93.3	8.8	39.8	11.1	5.6	2.9	64.4	935.8

NOTE: 1. Figures represent the number of hours used in the 1985 calendar year (excluding December).

2. Compiled from usage reports received to November 30, 1985

4.8 Research and Laboratory Services

Bighorn Sheep Research

The intensive bighorn sheep investigations continued at Ram Mountain in 1985 with the emphasis on characterizing the bighorn herd as it reaches and exceeds the range carrying capacity. The herd has been allowed to expand in numbers since 1981 to its present level of 142 animals and continues to be monitored to determine changes in survival rates, productivity, lower horn growth rates, and a virtual end to breeding by yearling ewes. These observations first appeared in 1985 and further monitoring of the population is required to confirm any trends.

The experimental prescribed burn conducted in 1983 on Ram Mountain continues to be monitored by the University of Alberta. Such monitoring includes range utilization by sheep and plan regeneration. Sheep use of the burn area appears to have declined from 1984.

A new major bighorn project was initiated in the spring of 1985 to investigate possible conflicts resulting from the building of an alpine skiing facility for the 1988 Olympic Games on Mt. Allan. The objectives of this project are to determine seasonal sheep distribution, the location of sensitive lambing areas, the general health status of the herd and to recommend mitigating procedures to reduce any conflicts which may negatively affect the healthy status of this herd.

Radio-collars were placed on 13 animals in the spring and summer and intensive monitoring of these animals will occur year round. Sheep-hiker interactions were observed during the summer and continuous observations of the sheep on Mt. Allan and Wind Ridge will be maintained throughout the winter. These observations are scheduled to continue as the area becomes open for recreational skiing in 1986-87.

The causes of the 1982 bighorn die-off in southern Alberta continue to be investigated as well as the monitoring of the remaining herd as it recovers. Experiments are being conducted in conjunction with the Alberta Veterinary Services Lab in Edmonton on live bighorns to help further understand the role of lungworms, domestic livestock and various bacteria in bighorn sheep mortality. The population in southern Alberta appears to have stabilized in numbers but lamb survival in 1984 was still very low. A summer survey in 1985 indicated a much improved lamb/ewe ratio. That was before winter, however, and recruitment into 1986 remains to be seen.

Caribou Research

A first draft of the Provincial Management Plan for caribou and an applied research proposal to recover the woodland caribou populations in west-central Alberta were developed.

As an initial stage to inventory caribou through the province, a postcard sighting program was implemented. Postcards were made available to government and industry personnel and private individuals who work or live within areas of known or suspected caribou range. This information will be used to determine where more intensive inventory methods are justified.

Lab Services

The 1984 Incisor Bar Program was completed, with a total of 3 317 animals aged. This included 1 688 elk, 1 035 moose, 262 mule deer, 167 non-trophy sheep, 95 white-tailed deer, 63 antelope and 7 goats.

Analysis for lungworms is nearing completion on 240 deer lungs collected at Camp Wainwright.

Twenty-six grizzly bear skulls and 42 cougar skulls were measured and aged and approximately 20 cougar carcasses were examined for parasites and food habits.

4.9 Brooks Wildlife Centre

Pheasants

In the 1985 season, Brooks Wildlife Centre hatched 131 064 chicks, an increase of about 12 621 over 1984. The 1981 production was 110 327 chicks; 1982 - 115 156; 1983 - 121 574; 1984 - 118 443; and 1985 - 131 064.

Of the chicks produced, 7 780 went to 4-H members as day-olds, 8 575 went to private raisers as day-olds, 1 400 went to Fish and Game clubs at one day of age, 14 321 went to Fish and Game clubs at the age of six weeks, and 1 149 were used for research purposes at 10 weeks old. The 17 755 birds distributed as day-olds involved 358 people. The 14 321 birds taken as six week-olds involved 48 Fish and Game clubs. There were 7 391 chicks retained for 1986 breeders at the centre and the balance were released at 16 weeks of age for reserve breeding stock. This summer and fall, 66 062 mature birds were released from the centre.

Waterfowl

In 1985, about 106 Canada goose goslings were reared at the centre for transplant purposes. An additional 72 were wild-trapped to make up the 178 required for the program.

In 1985, operation and financing of the waterfowl facility was taken over by the University of Alberta's zoology department. Two students from the university used the centre's facilities to further their studies.

One student used the Canada goose breeding flock, eggs and goslings produced, plus some wild collected eggs for his Master of Science studies. This produced approximately 126 goslings, of which 106 were surplus and were used in provincial transplants.

A second student hatched approximately 200 mallards from collected wild eggs to produce a captive flock. A few ducks were also hatched for the public display flock. The student will be continuing observations on this flock through the winter and into next summer.

It is not yet known if any more students will continue working with the geese next year. If not, the flock may have to be released. We currently have only 36 adults and 20 young which form the final phase of a goose behavior study.

Extension

In 1985, the Brooks Wildlife Centre had a total of 3 650 visitors, about the same as in 1984, and 3 350 were given tours. Of the visitors, 79% were Albertans, 11% other Canadians, 5% Americans and the remaining 5% from other countries.

In 1985, we had a 4-H raiser display and a storytime for young children. In 1986, we plan to have a habitat display as well. Outdoors there is a parking area, picnic shelter, upland bird display pens, waterfowl display pond, and a network of red shale paths in the public area. Indoors, there is a panel display of all centre project areas, a diorama of a pheasant hen and chicks, mounted display birds, an egg collection, the film "Habitat, A Place for Wildlife", another film on the Brooks Wildlife Centre, and a slide show.

The centre provides an excellent opportunity to reach and educate people about the activities and goals of Alberta Fish and Wildlife. For many, this is the first and only exposure to the Division and its program.

5. FISHERIES MANAGEMENT

5.1 Sport Fisheries Management

Walleye

The 1985 walleye enhancement program was directed at the identification of walleye spawning runs as potential sources of walleye eggs and the culture aspects of walleye spawn-taking, hatching, fingerling rearing and planting.

The following four sites were evaluated as potential sources of walleye eggs: Bistcho Lake, Wabasca Lake, Gardiner Lake and Primrose Lake. Bistcho Lake and Wabasca Lake have good to excellent potential while Primrose Lake requires further assessment.

A total of 12.5 million eggs were collected. These eggs were hatched in the Sam Livingston Fish Hatchery and resulted in the production of 3.5 million fry. Of these 400 000 were returned to the donor lakes. An additional 1.9 million fry were stocked into Wabamun Lake. The remaining fry were utilized in the fingerling pond culture program conducted at Vegreville and Plamondon. The fingerling program experienced poor results and only 3 800 fingerlings were recovered. These fingerlings were stocked into Lac La Biche.

Yellow Perch

During 1985, 10 lakes were stocked with yellow perch, which were transferred from lakes where there were strong perch populations. Of the 10 lakes stocked, three were new sites and seven were continuations of previous stockings.

Trout

The trout management program for 1985 was based on the maintenance of the natural reproducing stocks through regulation of the fishery and by the maintenance and development of non-producing populations of trout by a stocking program.

Several natural trout populations in the East Slopes were monitored this year to estimate numbers and growth. As well, an economic and creel census was undertaken on the Bow River in Calgary.

The trout stocking program provides angling opportunities in areas where trout do not occur naturally and cannot maintain themselves by natural reproduction. The program has been directed at increasing angling opportunities in or near urban areas and to provide variety in angling experience in terms of species available and types of habitat such as streams, beaverdam areas, high mountain lakes, foothill and prairie potholes.

In 1985, the trout stocking program used six species of trout and arctic grayling to stock 307 waterbodies. The species used were rainbow trout, cutthroat trout, brown trout, eastern brook trout, lake trout, golden trout and arctic grayling. The following table shows the numbers of each species stocked.

Rainbow Trout	5 400 000
Cutthroat Trout	200 000
Brown Trout	486 000
Eastern Brook Trout	538 000
Golden Trout	4 000
Arctic Grayling	17 000
Lake Trout	117 500

The number of waterbodies stocked in 1985 by administrative regions was as follows:

Southern Region	47
Central Region	55
East Slopes Region	133
North East Region	45
Peace River Region	28
	308

The total number of trout stocked in 1985 was up to 31 percent over the the 1984 total of 4.9 million. This increase was attributable to a substantial increase in the supply of rainbow trout, brown trout and eastern brook trout eggs from the Allison and Raven trout brood stock operations.

Over 5 million rainbow trout were stocked, of which 180 000 were catchable size fish (15 cm or longer). These provided instant fisheries in small urban ponds or in ponds where winterkill is a major problem. Many of these ponds were within or near urban areas and were designed to make angling opportunities more available, particularly for children.

Brown trout stocking was expanded, with 486 000 stocked in 1985, compared to 155 000 in 1984. Highlights of this stocking program were major plants in Calling Lake and the North Saskatchewan River upstream from Edmonton. The majority of the sites were in west central Alberta where beaverdams and suitable stream habitat exists for this species.

Cutthroat trout were stocked in Eastern Slopes Region lakes and streams in numbers similar to those of 1984. The stream stockings were designed to initiate cutthroat populations in streams that do not have good trout populations. The upper Red Deer River is one such area where cutthroat trout were again stocked to try to initiate a self-reproducing population and expand the opportunity for stream fishing in that area.

Eastern brook trout were stocked throughout the province. This species is more tolerant of muskeg-type water and lower oxygen conditions than other trout and is used in such lakes to increase angling opportunity and provide variety in the angling experience.

An arctic grayling program was initiated this year with the Swan Hills Fish and Game Club assisting in the egg take. A total of 17 000 grayling were stocked out.

Golden trout eggs were collected from a lake in southwestern Alberta and 4,000 fry were stocked after hatchery incubation and rearing.

The Fish and Game Club trout stocking continued in 1985. Seven clubs participated and 26 ponds were stocked with 17 400 rainbow trout fingerlings (5 cm long). The fish were recaptured from September to November and stocked into local lakes. There were 2 565 trout recaptured and these fish were stocked into six lakes where there is overwinter survival. This represented an average of 15 percent survival and recovery of trout. The low returns were attributed to summerkill in some instances and the difficulty of recapturing the fish by nets because of the size and rough bottom conditions in other ponds. It is planned to continue this program. making use of ponds which showed the best return.

Inventory

A systematic inventory program this year surveyed waterbodies throughout the province in order to find more water capable of supporting fish. In addition, the Recreation, Parks and Wildlife Foundation co-funded with the Division a complete inventory or waterbodies and fish populations in the County or Parkland.

5.2 Commercial Fisheries Management

Many Alberta lakes are managed to accommodate both a sport fishery and a commercial fishery. The main target species in the commercial fishery is whitefish. Northern pike, tullibee, lake trout, perch and walleye are also taken for commercial purposes but in considerable less volume than whitefish.

Protection is afforded game fish species by establishing low production quotas, regulating the mesh size of gill nets, using depth limits and closing areas of water frequented by game fish during the commercial fishery. The methods described have proven to be most beneficial in the sport fish management program.

During 1984/85, 2 312 commercial fishing licences, including 738 zone commercial licences and 1 564 zone fisherman licences were issued. This was a decrease of 193 from the previous year's total. These numbers are expected to remain stable due to the recent freeze on entry into the commercial fishing industry. The freeze on licensing is an interim measure pending the establishment of a new commercial fishing licence system for Alberta.

The transferable licence policy for commercial fisheries received final approval in 1985. When the new licencing system is introduced it will be possible to reduce the number of commercial fishermen, to ensure adequate income opportunities within the commercial fishery and to maintain a more evenly distributed flow of fish to the market. The reform of the present licencing system is regarded as a major step toward the objective of maintaining a viable commercial fishery in the province.

From the 93 lakes open to commercial fishing during 1984/85, the catch was 2.5 million kg of fish, with a value to fishermen of $2 million. This was an increase of approximately .6 million kg of fish over the previous year's

catch. The total landed value was $.3 million more than in 1983/84. International market prices were somewhat higher in 1984/85. Record high prices for export grade whitefish were experienced in the late winter and early spring.

During the 1984/85 fishing season, four fish packing establishments were granted Dealers Licences through the Freshwater Fish Marketing Corporation, which has strengthened markets and sales of Alberta fish in the province.

5.3 Fish Culture

Alberta was largely self-sufficient in the production of fish stock cultured in 1985 (excepting 1.6 million rainbow trout eggs and 400 000 lake trout eggs which were purchased). All other stocks were taken from provincially cultured brood fish or native wild stocks.

Raven Brood Trout Station contributed approximately two million rainbow eggs. Brood trout, maintained at Sam Livingston Fish Hatchery, contributed an additional three million rainbow trout, and Allison Brood Trout Station produced eggs for approximately 538 000 eastern brook trout fingerlings and 485 000 brown trout.

Cutthroat trout eggs were once again successfully collected from wild parent stocks in Job Lake. Lake trout eggs were purchased from Manitoba in 1985 to meet lake trout planting requirements for 1986. These lake trout egg purchases are expected to be repeated annually until a satisfactory Alberta source can be established. Cornwall Lake is being re-examined as a donor lake for eggs.

Approximately 3.5 million walleye fry were hatched from eggs of wild parent stock at the Sam Livingston Fish Hatchery. Four hundred thousand fry were subsequently planted back into the donor lakes. Another 1.9 million fry were planted into Wabamun Lake. The remaining fry were planted into ponds at Vegreville and Plamondon for fingerling rearing.

Sundance Trout Rearing Station was contracted to a private operator for rearing yearling trout for public planting in 1984/85. The facility reared approximately 120 000 yearling trout.

Species composition of hatchery trout planted in 1985 was 5.4 million rainbow trout, 200 000 cutthroat trout, 4 000 golden trout, 538 000 eastern brook trout, 486 000 brown trout and 117 500 lake trout. This production of fish by weight, was 62 846 kg (138 550) pounds), which is above normal for the existing facilities. In addition to trout, 2.2 million walleye,

328 500 yellow perch and 17 000 arctic grayling were planted in 1985. Total fish plantings amounted to 9 326 000 fish. This number is about eight percent larger than the 1984 all time Alberta planting record. The 1985 increase is a direct reflection of the additional staff assistance available from Cold Lake Fish Hatchery.

Development continued at the Cold Lake Fish Hatchery site in 1985, with completion of ten walleye rearing ponds in October. Construction of the main hatchery building and raceways will continue as long as winter construction allows. The facility will be completed before summer (1986). Fish will be introduced as constructed elements and pre-operational testing permit. This facility is designed to incubate eggs and rear 1.4 million 10 cm rainbow trout, 600 000 fingerling lake trout, 25 million walleye fry and 200 000 walleye fingerlings.

Allison Brood Trout Station has reliably performed beyond its original design goals since a water recirculation system was introduced. This system ensures adequate temperatures and proper temperature control. Several mechanical problems have appeared in the plant but these have been largely attended to and will be completely addressed by the end of 1986. Egg incubation at Allison has been very successful and has now expanded to incubate all eggs produced at the facility to the eyed stage.

Raven Brood Trout Station is currently converting to modular recycle systems. This conversion will overcome the severe limitations of its traditional water supplies which are cold ground water and poor quality surface water. The first of four modules was completed in 1985. This unit has enabled improved egg production, increased egg size and improved brood fish condition. A second recycle module will be in service early in 1986. Incubation of eggs to the eyed stage has also been introduced to Raven this year. This incubation greatly reduces the long term overload previously occurring at the Sam Livingston Fish Hatchery.

6. HABITAT

During 1985/86 the Habitat Branch continued its commitment to the assessment and development of fish and wildlife habitat throughout the province. In addition to responding to a variety of industrial land use referrals, the Branch was also involved with the Instream Flow Needs program as well as the ongoing Agricultural Land Base Expansion study.

From a habitat development perspective, under the auspices of the Buck for Wildlife Program, over 250 Fisheries and Wildlife projects were initiated, with a budget well in excess of $2.4 million.

Alberta Fish and Game clubs were actively involved with 46 wildlife habitat development projects within the province. The following summarizes the numbers and types of projects within each of the five wildlife administrative regions.

In the Southern Region there were 10 Buck for Wildlife projects that involved various Fish and Game associations. To date, expenditures totalling $27 753.78 have contributed to projects such as providing feed for upland birds, the establishment of shelterbelts, elk winter range improvement, development of new waterfowl habitat, and improvement of goose nesting habitat.

The East Slopes Region has three Buck for Wildlife projects involving local Fish and Game associations, with a budget of $13 504.45. The major project undertaken by the Fish and Game Association has been the construction of a fireguard for a prescribed burn on Kvass Flats. Other projects have involved the placement of goose nesting bales in various locations throughout the region.

In the Northeast Region there are 20 Buck for Wildlife projects undertaken by local Fish and Game clubs. A budget of $41 437 has been allocated towards various projects. The majority of these projects involved placing various nesting structures to enhance waterfowl nesting success. Projects involving wetland enchancement and shelterbelt planting have also been initiated.

The Peace River Region has three Buck for Wildlife projects involving Fish and Game clubs, with a regional budget of $21 000. Expenditures included $16 500 towards the Smoky River Elk Plot project and $1 160 towards nest bale programs.

The Central Region has 10 Buck for Wildlife Projects involving local Fish and Game clubs, with a budget of $24 250. Expenditures to date have gone towards enhancing waterfowl nesting success in the various wetlands located throughout the region.

On a provincial level, a majority of the fisheries habitat development projects were implemented by the Fish and Wildlife Division in cooperation with other government agencies, such as Alberta Environment and Alberta Transportation, and municipal authorities. Alberta Fish and Game Association clubs implemented and assisted with the implementation of nine fisheries habitat development projects in the last year. Trout Unlimited implemented four projects during the same period and the Peace County Flyfishers Association implemented one project.

The Fisheries Access program was initiated in 1982 with the intent of developing public access facilities, complete with sanitary maintenance of fishing areas. During 1985, five sites were developed: East Dollar Lake, Lac Delorme, Heningers Reservoir, Dipping Vat Lake and Policeman's Flats on the Bow River. In total, 29 sites have been completed since the inception of the program. Site development includes land hardening and graveling and the installation of toilets and garbage bins. Maintenance of the site facilities during the major fishing season from May to September is contracted out.

Development of the McKinnon Flats fisheries access site on the Bow River is currently underway and will be completed in 1986. This site will provide approximately 3 km of foot access to the Bow River in addition to parking, sanitary and boat launch facilities.

Table 20
1984/85 WILDLIFE BUCK FOR WILDLIFE PROJECTS

Region: Southern Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
Enchant Park Wetland 8-14-18-W4M - B.R.I.D. - Enchant Recreation Board	Develop and maintain 25-acre marsh for wildlife. Geese, waterfowl and pheasants are main benefactors.	$ 18 000.00	On-going.
Mortensen Property Portions of Sections 9, 10, 15, 16-18-14-W4M - Ducks Unlimited - E.I.D.	Improve wetland habitat management on 200 acres of marsh acquired by the Crown. Cost shared with Ducks Unlimited. Pheasants, waterfowl and deer will benefit.	$ 53 000.00	On-going.
Moose Habitat Improvement Selected Sites	Clear 600 acres for browse regeneration in North Porcupine Hills, primarily for moose and secondarily for elk and deer.	$ 84 500.00	On-going.
Magrath Rod & Gun Club Property NW23-5-22-W4M - Magrath Fish & Game Club	Provide 1 acre of winter feed (corn) for pheasants on property owned by the club and fence the corn plot.	$ 235.00	On-going.
Tilley Upland SW7-17-12-W4M - Tilley Fish & Game Club	Project will establish 1 000 m of shelterbelt and 2-acre corn plot for upland birds.	$ 610.00	On-going.

Table 20
(continued)

Region: Southern Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
Castle River Elk Range Improvement Project 1 & 2-6-3-W5M - Lethbridge Fish & Game Club	Elk winter range improvement through reseeding and fertilizing of 220 acres of grassland.	$ 9 560.00	On-going.
Foremost Upland Enhancement NE24-6-12-W4M - Foremost Fish & Game Club	5 acres of shelterbelt planting on 40-acre parcel of land owned by the club.	$ 2 200.00	On-going.
South Porcupine Hills Elk Project - Alta. Fish & Wildlife - Alberta Forest Service - Beaver Creek Stock Association	4-year program to eliminate 380 acres of brush encroachment on 740 acres of prime elk winter range utilized by 400 elk. Project designed to reduce livestock-elk forage competition and depredation on private lands. Total 4-year project cost is estimated at $123 850.	$ 13 250.00	On-going.
East Trout Creek Range Improvement Project 12 & 13-1-W5M - Alberta Forest Service - East Trout Creek Stock Association	A cooperative 3-year program to clear 230 acres of brush and spray 70 acres of brush on 7 sites within Porcupine Hills. Project designed to eliminate brush encroachment on prime elk range and reduce livestock and elk forage competition. Total 3-year cost, including Alberta Forest Service contribution, estimated at $60 000.	$ 15 180.00	On-going.

Table 20
(continued)

Region: Southern Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
Burke Creek Range Improvement Project 12-1-W5M - Alberta Forest Service - Burke Creek Stock Association	A cooperative 3-year program to clear 194 acres and spray 20 acres of brush on 5 sites within the Porcupine Hills. Project is designed to eliminate brush encroachment on prime elk range and reduce livestock and elk forage competition. Total 3-year cost, including Alberta Forest Service contribution, is estimated at $43 000.	$ 12 812.00	On-going.
Todd Creek Range Improvement District 9 & 10-3-W5M - Alberta Forest Service - Todd Creek Stock Association	A cooperative 3-year program to clear 210 acres of brush and spray 100 acres on 6 sites east of the Livingstone Range. Project is designed to eliminate brush encroachment on prime elk range and reduce livestock and elk forage competition. Portions of the clearings will be allowed to regenerate to provide benefits for moose. Total 3-year cost, including Alberta Forest Service contribution, is estimated at $57 000.	$ 13 860.00	On-going.
Goose Nesting Structures Various Locations - Vulcan Fish & Game Club	20 goose nesting structures were installed in various locations in Vulcan area.	$ 1 800.00	Completed.
Stonehill Lake Shelterbelts Various Locations - Vulcan Fish & Game Club	Shelterbelts were established on 5 acres of Crown land adjacent to Stonehill Lake for non-game and upland bird species.	$ 1 900.00	Completed.

Table 20
(continued)

Region: Southern Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
Millicent 19 & 30-20-13-W4M - E.I.D. - Ducks Unlimited	Buck for Wildlife signs and fencing improvements were installed on Millicent property.	$ 3 850.00	Completed.
Sproule 35-14-14-W4M	Food plot (18 acres of corn) was established on the property for upland birds and deer and 1/2 mile of fence and parking lot were constructed to facilitate public use of the property.	$ 5 800.18	Completed.
Heningers Reservoir 16-3-12-W4M	Newly acquired property at Heningers Reservoir has been fenced and upland portions seeded to nesting cover for waterfowl and Hungarian partridge; will also provide forage source for deer and antelope.	$ 16 135.00	Completed.
Mountain Bluebird Trails Various Sites - Southern Region, Southern Alberta - Mountain Bluebird Trail Association - Junior Forest Wardens	Improve bluebird nesting success in areas frequented by the species.	$ 3 600.00	Completed.
Moose Habitat Improvement (Ranson Lease) 2 & 11-14-3-W5M 24-13-3-W5M - Land Division - Lessee	Improve winter browse supply primarily for moose and secondarily for elk and deer on an area of high browse utilization.	$ 11 220.00	Completed.

Table 20
(continued)

Region: Southern Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
Moose Habitat Improvement (Spruce Ranching Coop) 3, 5, 6, 7, 8, 10, 17, 18-15-2-W5M - Lands Division - Grazing Coop	Improve winter browse supply primarily for moose and secondarily for elk and deer on an area of high browse utilization.	$ 16 150.00	Completed.
Brooks Aqueduct Property - Brooks Fish & Game Club	Improvements will provide winter feed and summer cover for pheasants and deer wintering in an adjacent cattail marsh.	$ 5 698.33	Completed.
Badger Lake - Wetland Development 16-18-W4M - Ducks Unlimited - B.R.I.D. - Alberta Environment	Project created 60 acres of wetland habitat for waterfowl and upland birds and revegetated 3 nesting islands for improved goose production.	$ 21 795.00	Completed.
Bobby Burns Project 11-5-30-W4M - Pincher Creek Fish & Game Club - Ducks Unlimited	Project will provide 18 acres of new waterfowl habitat.	$ 3 919.70	Completed.
Goose Nesting Platforms Various Sites in Medicine Hat region - Medicine Hat Fish & Game Club	Project will improve goose nesting success on a number of marshes which currently lack secure nesting habitat.	$ 1 688.75	Completed.

Table 20
(continued)

Region: Southern Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
Floating Goose Nesting Platforms 26-12-27-W4M - Claresholm Fish & Game Club	Project will provide secure goose nesting habitat on a marsh which currently lacks such habitat.	$ 502.00	Completed.
Will J. Reid Project 24 & 25-23-16-W4M 19 & 30-23-15-W4M - E.I.D. - Ducks Unlimited - Recreation, Parks and Wildlife	Project will improve water management capabilities on 260 acres of existing wetland and create 200 additional acres of marsh. This cost-shared project will improve irrigation waste water flows and provide improved habitat for waterfowl, deer and upland birds (pheasant and sharp-tailed grouse).	$ 35 000.00	Completed.
Jerusalem Artichoke Mortensen Property 15-18-14-W4M	1 acre of Jerusalem Artichoke has been planted and maintained on the Mortensen Property.	$ 1 052.00	Completed.
Prouty Lake 8, 16 & 17-15-18-W4M - B.R.I.D. - Ducks Unlimited	Cooperative wetland development project (550 acres) which will improve waterfowl and upland bird production and provide benefits for irrigation efficiency through increased water transport.	$ 75 000.00	Completed.
Tyrrell-Rush Lakes 5-17-W4M - Ducks Unlimited - County of Warner - Alberta Environment - S.M.R.I.D.	Cooperative wetland management, with Ducks Unlimited and Alberta Environment, of 400 acres of marsh for waterfowl and upland birds.	$ 9 000.00	On-going.

Table 20
(continued)

Region: Southern Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
Stirling Lake 6-7-19-W4M - R.I.D. - Stirling Cattle Company - Ducks Unlimited	Cooperative management of 600-acre marsh for waterfowl.	$ 50 600.00	On-going.
	(Southern)	$ 487 917.96	

Table 20
(continued)

Region: East Slopes Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
Elk Range Enhancement Kvass Flats 55 & 56-9-W5M - Grande Cache Fish & Game Club - Alberta Forest Service (Alberta Fish and Game Association Project)	To construct a fireguard for a prescribed burn on Kvass Flats.	$ 2 026.00	Completed.
Front Range Sheep Range Enhancement 3 & 4-1 & 2-W5M - Willow Valley Trophy Club - Coleman Fish & Game Club - Alberta Forest Service (Alberta Fish & Game Association Project)	To enhance bighorn sheep range by controlling brush encroachment through clearing and burning and seeding grass. Five potential sites have been identified to provide approximately 140 acres of enhanced range.	$ 36 000.00	On-going.
Shiningbank Browse Enhancement 57, 58, 59-11, 12, 13, 14-W5M	To enhance ungulate browse production through planned forest harvesting. Consultant retained to assess browse production and identify potential clearing sites. This evaluation relates to Pelican Mills harvest of trembling aspen in the Shiningbank area.	$ 34 090.00	On-going.
Shiningbank Elk Range Enhancement 57-14 & 15-W5M	Two 8-ha plots will be hand cleared of aspen on steep south facing slopes on the Shiningbank Hills.	$ 20 000.00	On-going.

Table 20
(continued)

Region: East Slopes Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
North Saskatchewan Range Enhancement 39-27-W5M	Clearing 20 hectares of aspen on the south facing breaks of the North Saskatchewan River. EEP crew will be utilized.	$ 1 865.00	On-going.
East Slopes Ungulate Range Enhancement 33-8-W5M	EEP staff will be utilized to hand clear possibly 560 hectares and, with Alberta Forest Service approval, to hand clear a fireguard for a 60-hectare prescribed burn in the Bread Creek Junction area.	$ 29 000.00	On-going.
Edson - Whitecourt Swan Nesting Enhancement Various Locations	Placement of round flax bales for additional nesting sites at lakes that currently have limited Trumpeter Swan use.	$ 4 100.00	Planning on-going.
Sunkay Creek Ungulate Range Enhancement 40-18-W5M	Approximately 50 ha of historic grassland will be brushed by bulldozer and resultant disturbed areas will be reseeded for elk. Currently 50 elk are utilizing what is available in this area for winter forage. Enhancement will increase carrying capacity.	$ 11 500.00	On-going.
Chip Lake Twp. 35-56, Rge. 9-11-W5M	Wildlife protection and habitat improvement: supplies 90% of duck and goose hunting in southern part of Edson region. Interpretive and Buck for Wildlife sign placement by July 31, 1986. Six Buck for Wildlife areas encompassing over 1 400 acres along the shore now provide excellent waterfowl and upland hunting opportunities. For 1985/86 fiscal year, three islands are to be burned to improve nesting grounds for waterfowl.	$ 3 110.00	On-going.

Table 20
(continued)

Region: East Slopes Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
Controlled Burn Chases Flats 57-25-W5M - Alberta Forest Service - Hinton Forest Training School.	Grassland maintenance through prescribed burning of elk winter ranges. Burn will aid in maintaining elk population in the area. Area of 230 ha currently supports approximately 40 elk.	$ 3 000.00	Completed.
Clearwater River Range Enhancement 15-35-9-W5M - Alberta Forest Service - Amerada Minerals	Comparative range enhancement through different clearing techniques. Will provide 100 AUM of elk range (50 acres or 20 ha). Most cost effective method will become apparent within 2-3 years following treatment. Bulldozer, hydro-axe, herbicide and fire methods of brush removal will be compared.	$ 2 150.00	Completed.
Pinto Creek Goat Range Enhancement 55-26-W5M	Enhance range for a unique goat population on Pinto Creek.	$ 1 600.00	Completed.
	(East Slopes)	$ 144 341.00	

Table 20
(continued)

Region: Peace River Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
Smoky River Elk Plots 20, 21-29-76-23-W5M - Smoky River Fish & Game Club	Proposed plots to be improved for elk range. Sixty acres proposed for clearing and seeding.	$ 16 500.00	On-going.
Carmen Creek Moose Enhancement 86-21-W5M - Peace Country Fish & Game Club - Three Creeks Grazing Reserve	Enhance overwintering opportunities for moose by creating new browse. One hundred and twenty acres proposed for clearing.	$ 2 600.00	On-going
Godberson Water Stabilization Project NE11-84-4-W6M - Ducks Unlimited - Godberson Family	To create 80 acres of wetlands for nesting waterfowl and create nesting islands.	$ 45 690.00	On-going.
Fiest Clearing 23-24-84-9-W6M - Alberta Fish & Wildlife - Mr. Fiest	To enhance ungulate winter range by clearing Peace River uplands of second growth aspen.	$ 30 000.00	On-going.
Emile Ray Fencing 12-13-76-23-W5M - Lands Division - Alberta Fish & Wildlife	To protect critical ungulate winter range by fencing off cattle.	$ 5 000.00	On-going.

Table 20
(continued)

Region: Peace River Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
Dunvegan Fish & Game Goose Bales, Fairview Area - Alberta Fish & Wildlife - Dunvegan Fish & Game Club	To replace goose bales that have deteriorated with age -- old bales with an 80% nesting success.	$ 360.00	On-going.
Buffalo Head Prairie Ungulate Enhancement 34-104-17-W5M	To improve moose winter range by clearing second growth aspen. Eighty acres affected.	$ 2 200.00	On-going.
Peace River - South Worsley Ungulate Enhancement NW30, W1/2 31-84-7-W6M - Alberta Fish & Wildlife	To improve moose winter range by clearing second growth aspen. Four hundred and eighty acres affected.	$ 9 000.00	On-going.
South Whitemud Hills Ungulate Enhancement 28-84-1-W6M	To improve moose winter range by clearing second growth aspen on 580 acres upland, 60 acres wetland.	$ 8 500.00	On-going.
Burnt River Proposal 79-1-W6M - Alberta Fish & Wildlife	Improve ungulate winter range through clearing of uplands adjacent to Peace and Burnt Rivers.	$ 19 200.00	On-going.
Grande Prairie Fish & Game Club Goose Bales	To replace goose bales that have deteriorated with age -- old bales with an 80% nesting success.	$ 800.00	On-going.

Table 20
(continued)

Region: Peace River Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
Three Creeks Habitat Development 84-85-20-W5M - Alberta Fish & Wildlife	To enhance winter range for deer and moose in an area heavily used by sportsmen.	$ 30 000.00	On-going.
Friedmeyers Wetlands 15-85-22-W5M - Fred Friedmeyer - Alberta Fish & Wildlife	Improve lakeshore and build island to improve waterfowl habitat.	$ 28 000.00	On-going.
Peace River Area Burnt River 79-1-W6M - Peace River People with Special Needs - Alberta Fish & Wildlife	To construct and place nest boxes in areas around Peace River town. To increase public awareness of the wildlife resource.	$ 700.00	On-going.
Decorby Wetlands	To maintain the level of a waterbody to successfully nest waterfowl.	$ 0	On-going.
Smoky River Habitat Development	To improve ungulate winter range by removing second growth aspen.	$ 7 200.00	On-going.
North Belloy Habitat Development	To improve ungulate winter range by removing second growth aspen.	$ 15 600.00	On-going.
Chinook Valley Habitat Development	To improve ungulate winter range by removing second growth aspen.	$ 2 400.00	On-going.

Table 20
(continued)

Region: Peace River Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
South Heart River Fencing N1/2 5-76-17-W5M	Improved spawning habitat and improved wildlife travel corridor.	$ 5 000.00	Completed.
Wapiti River Burn 66-13-14-W6M	Improved ungulate habitat.	$ 4 270.50	Completed.
Three Creeks Top Rail Fencing SW3-86-19-W5M	Cattle fenced from important travel corridor.	$ 1 700.00	Completed.
	(Peace River)	$ 234 720.50	

Table 20
(continued)

Region: Central Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
Crown Land Habitat Development Various locations	To maintain and enhance wildlife and fisheries habitat on Crown lands.	$ 75 000.00	On-going.
Habitat Retention Program Various locations	To maintain and enhance wildlife and fisheries habitat on private lands.	$ 0	Project in planning.
County of Red Deer Habitat Retention Program Various locations	To maintain and enhance wildlife and fisheries habitat on private land in the County of Red Deer.	$ 2 000.00	On-going.
Belich's Slough NE26-38-28-W4M	Construct waterfowl nesting islands to enhance productivity. October 31, 1985.	$ 7 000.00	On-going.
Berry Creek Reservoir (Carolside Res) 27-12-W4M	Improve waterfowl habitat to enhance productivity on wetlands associated with this reservoir.	$ 0	Project in planning.
Copley Lake NW14-32-2-W5M	To improve waterfowl habitat by stabilizing lake levels which accommodate present industrial (gravel washing) operation.	$ 0	Project in planning.
Cubs, Scouts, Naturalists	To provide funds to assist in approved wildlife habitat improvement projects.	$ 10 000.00	On-going.
Deadfish Reservoir 23-13-W4M	Improve waterfowl habitat to enhance productivity on wetlands associated with this reservoir.	$ 0	Project in planning.

Table 20
(continued)

Region: Central Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
Dickson Dam Site 6 & 7 6) NW12-35-3-W5M 7) N1/2 & SW11-35-3-W5M	Site 6 - waterfowl, semi-aquatic mammal and marsh bird habitat enhancement project. Site 7 - habitat enhancement for ungulates and upland birds.	$ 10 000.00	On-going.
Goose Nesting Bales Various locations	To provide secure nesting sites for geese where populations are expanding and to replace traditional sites which are destroyed.	$ 7 500.00	On-going.
Hawk Nesting Poles Various locations in east-central Alberta primarily in Bullpound Creek area south of Hanna	To provide secure nesting sites for ferruginous hawks within suitable habitat in the Central Region.	$ 1 500.00	On-going.
Zane Parson 44-12-W4M	Improved upland bird cover and deer forage on private land by establishing shelterbelts and food plots for birds and big game.	$ 4 950.00	On-going.
Lowden Lake W1/2 6-37-19-W4M	To develope a waterfowl marsh by dyking a 20-acres bay of the lake. Island construction could follow.	$ 7 000.00	Project in planning.
Moltzahn Clearing Pt. NW4-42-22-W4M	To improve ungulate and upland bird habitat by clearing bush to create small openings, improving forage and cover values. March 31, 1986.	$ 5 500.00	On-going.

Table 20
(continued)

Region: Central Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
Namaka Lake Pt. 6-23-23-W4M Pt. 11, 12-23-24-W4M	To protect and develop habitat for waterfowl and upland birds, establish food plots, maintain bait station, monitor waterfowl numbers.	$ 17 150.00	On-going.
Niemela Reservoir SE1-39-3-W5M	To provide some cover for wildlife and to enhance aesthetics of area. Project area approximately eight acres.	$ 1 500.00	On-going.
Osprey Nesting Poles Dickson Dam 17-35-2-W5M	To provide secure nesting sites for Dickson Dam Reservoir (Glennifer Lake).	$ 1 500.00	On-going.
Slack Slough 21-37-27-W4M	To develop a waterfowl march to increase productivity near an urban center so the public can be made aware ofthe Buck for Wildlife program.	$ 4 200.00	On-going.
Windsor Lake SW10-42-22-W4M	To provide cover for wildlife and to enhance aesthetics of area. Construct waterfowl nesting islands.	$ 1 800.00	On-going.
Castor Fish & Game Club Goose Bale Placement Various locations - County of Paintearth	To improve waterfowl nesting by placing 25 bales in waterbodies.	$ 84.00	Completed.
Castor Fish & Game Club Rock Islands NW1/4 17-36-12-W4M	Construct two waterfowl islands to enhance waterfowl production.	$ 400.00	Completed.

Table 20
(continued)

Region: Central Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
Radar Nest Islands NE1/4 34-36-26-W4M NW1/4 5-36-26-W4M SE1/4 3-37-26-W4M	To improve waterfowl nesting by constructing 10 rock islands.	$ 3 625.00	Completed.
Dickson Level Ditching NE34-35-3-W5M	Develop waterfowl habitat and maintain water supply for various wildlife species.	$ 1 470.00	Completed.
West Buffalo Fish & Game Club Nesting Platforms Various locations	To enhance and improve waterfowl nesting by constructing two nest platforms.	$ 584.91	Completed.
Hay Lakes Fish & Game Club Bale Nesting Various locations	Install 25 nesting bales.	$ 0	Cancelled.
Boy Scouts of Canada Camrose Bird Houses NW, SW & SE4-50-21-W4M NW & NE33-49-21-W4M	To construct and place 14 waterfowl nest boxes in Oliver Lake area.	$ 74.27	Completed.
Bigelow Reservoir Pt. 3, 4, 9, 10-34-25-W4M	Habitat development project for game and non-game wildlife, with emphasis on pheasants, ungulates.	$ 1 486.09	Completed.
Buffalo Lake 9, SW10-40-21-W4M	Habitat development project for game and non-game wildlife, with emphasis on pheasants, ungulates.	$ 35.22	Completed.

Table 20
(continued)

Region: Central Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
Riddett Fencing Project 16-47-23-W4M	To improve waterfowl habitat by fencing out waterbody to prevent grazing of shoreline areas.	$ 3 064.25	Completed.
Bend Project 29-36-25-W4M	To improve shoreline habitat for nesting waterfowl.	$ 754.10	Completed.
High River Waterfowl Nesting and Upland Improvement 5-19-28-W4M	To develop waterfowl and upland habitat (shelterbelts, goose bales). To provide a viewing platform and nature trails.	$ 4 537.80	Completed.
Iron Creek Tree Planting 43-11-W4M	Improve upland bird cover on agricultural lands by establishing shelterbelts.	$ 2 100.00	Completed.
McKinnon Flats Pt. NE20, NW21, SW28, SE29-21-27-W4M	To provide some cover for wildlife and to enhance aesthetics of area. Project area approximately 335 acres.	$ 15 105.85	Completed.
Okotoks Goose Nesting and Pheasant Habitat Development SW34-20-29-W4M	To improve waterfowl and upland bird habitat. To provide viewing platform.	$ 6 004.80	Completed.
	(Central)	$ 195 926.29	

Table 20
(continued)

Region: Northeast Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
St. Paul Community Pasture 56-10-W4M	To produce a plan integrating wildlife habitat enhancement and public access with grazing.	$ 0	On-going.
Rannach Community Pasture 55-11-W4M	To produce a plan integrating wildlife habitat enhancement and public access with grazing.	$ 0	On-going.
Minburn Community Pasture 48-10-W4M	To produce a plan integrating wildlife habitat enhancement and public access with grazing.	$ 0	On-going.
Colin McNabb Habitat Management Area S1/2 18-49-5-W4M	To produce and implement a plan to enhance wildlife habitat on 130 ha of agricultural land which will be bequeathed to the province.	$ 0	On-going.
Allen Wetland Project SE8-54-21-W4M - Landowner - Ft. Saskatchewan Fish & Game Club	Retain and enhance waterfowl nesting on 2-ha slough.	$ 380.90	Planning on-going.
Barrett Property Ungulate Enhancement 22, 27, SW34-60-13-W4M - Morley & Marilyn Barrett - Gordon Chalmers	Enhance 489-ha property by seeding to forage 17 ha on 9 plots and 16.5 ha of interior trail. Wetland enhancement potential under evaluation.	$ 0	Planning on-going.

Table 20
(continued)

Region: Northeast Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
Medley River 65 & 66-1 & 2-W4M	Enhance browse production and habitat diversity on a 5 500-ha project area by mechanical clearing of 100 ha on 25 plots in 6 clearing zones. Develop a high quality habitat core area. Targeted moose density of 1.0 to 1.2 km². Secondary benefits to whitetailed deer, furbearers and ruffed grouse.	$ 50 000.00	On-going.
Upper Mann Lake Environment Employment Program W1/2 6-60-10-W4M NE25, SE36-59-11-W4M SW31-59-10-W4M Jessie Lake Islands N1/2 6, S1/2 7-61-5-W4M	Enhance habitat diversity and browse by handcutting six 2-ha plots on two land parcels, totaling 98 ha, adjacent to Upper Mann Lake. Remove trees used as perches by avian predators on two islands in Jessie Lake. Islands have outstanding duck nesting densities.	$ 22 050.00	On-going.
Rochester Habitat Management Area 62 & 63-21 & 22-W4M	To produce a plan integrating wildife habitat enhancement and grazing on 19 000-ha area. Target species: moose and whitetailed deer.	$ 0	Planning on-going.
Wolf Lake Grazing Reserve 64 & 65-6-W4M 65-7-W4M	To produce a plan integrating wildlife habitat enhancement and public access with grazing.	$ 0	On-going.
Smoky Lake Grazing Reserve 60 & 61-15-W4M 60-16-W4M	To produce a plan integrating wildlife habitat enhancement and public access with grazing.	$ 0	On-going.

Table 20
(continued)

Region: Northeast Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
Thorhild Grazing Reserve 62-18-W4M 63-18-W4M	To produce a plan integrating wildlife habitat enhancement and public access with grazing.	$ 0	On-going.
Black Bear Grazing Reserve 63 & 64-26-W4M 64-25-W4M	To produce a plan integrating wildlife habitat enhancement and public access with grazing.	$ 0	On-going.
Connor Creek Grazing Reserve 59 & 60-7-W5M 59 & 60-8-W5M	To produce a plan integrating wildlife habitat enhancement and public access with grazing.	$ 0	On-going.
Jackpine Grazing Reserve 52 & 53-6-W5M	To produce a plan integrating wildlife habitat enhancement and public access with grazing.	$ 0	On-going.
Goose Bale Project Various locations - Wainwright Fish & Game Club	To supply and place 90 goose bales in the Wainwright area.	$ 2 362.00	Completed.
Sturgeon Valley Golf Course Level Ditching 23-54-25-W4M - St. Albert Fish & Game Club - Ducks Unlimited - Sturgeon Valley Golf Club	Construct 264 m of level ditching in six 44-meter segments. Provide nesting and brooding habitat. Secure 19 ha of river flat.	$ 2 401.00	On-going.

Table 20
(continued)

Region: Northeast Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
Clandonald Fish & Game Club Habitat Retention on Private and Leased Crown Lands Landon, Raft, Campbell Lakes - Clandonald Fish & Game Club	To retain wildlife habitat on an area of mostly deeded lands. Fish & Wildlife and club will identify candidate lands. Club members will contact landowners and lessee and arrange cooperation. Club will supervise development/retention effort.	$ 0	Planning on-going.
Seismic Line Moose Habiat Enhancement Various locations	Brush decadent shrub and tree growth-offset from seismic lines. Enhance browse production. Simulate awareness of enhancement capabilities and process among seismic operators.	$ 25 000.00	On-going.
Big Lake Goose Rafts 53-26-W4M - St. Albert Fish & Game Club	To construct and install two wooden nesting rafts to provide goose and duck nesting sites.	$ 482.17	On-going.
Goose Bale Nest Structures - Wainwright Fish & Game Club - M.C. of Wainwright	Place six barrel nest structures to enhance Canada Goose nesting success.	$ 220.00	On-going.
Mystery Lake Level Ditching Project NE1-60-7-W5M - Barrhead Fish & Game Club - Gordon Klebe	To excavate 700 feet of level ditch in a lowland area to enhance habitat diversity and waterfowl production.	$ 1 735.00	On-going.

Table 20
(continued)

Region: Northeast Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
Wabamun Habitat Improvement Project 22-53-4-W4M - Stony Plain Fish & Game Club	To reclaim 16 ha of land disturbed by strip mine. Plant tree and shrub seedlings in 1985.	$ 14 295.00	On-going.
Riparian Fencing Project - Public Lands	To retain and enhance riparian habitat on 1.5 km of lakeshore on three lakes and 4.5 km of Amisk River shoreline. Involves 6 km of fencing on four grazing leases.	$ 24 800.00	On-going.
Baseline Road Project NW33-52-23-W4M - Sherwood Park Fish & Game Club	Enhance 40 ha of wetland habitat. Increase public viewing opportunities. Provide public exposure for Buck for Wildlife.	$ 0	Planning on-going.
Perforated Culvert - Barrhead Fish & Game Club - County of Barrhead	Prevention of wetland drainage. Habitat retention on private lands. Reduction of beaver control costs. Construction, installation, maintenance of 30 pipes.	$ 2 700.00	On-going.
Telford-Saunders Ord Lakes 49 & 50-24 & 25-W4M	Evaluate potential for waterfowl enhancement. Evaluate SW36-49-25-W4M, adjacent to Telford Lake, for acquisition and upland enhancement.	$ 0	On-going.
City of Edmonton Bird Feeder Supply Project - John Jansen Nature Centre - Edmonton Bird Club	To complement an urban wildlife interpretive educational program by supplying bird feed for feeders to attract resident birds to visible locations within the North Saskatchewan River Valley. To highlight non-game species activities of Fish & Wildlife Division and the Buck for Wildlife program.	$ 1 000.00	On-going.

Table 20
(continued)

Region: Northeast Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
Regional Nest Box Project	Supply nesting boxes to enhance productivity, preserve small wetlands and increase public awareness of wildlife habitat values.	$ 2 700.00	On-going.
Whitford Lake	Participate on planning team to establish criteria for management of 87 km² wetland/ agriculture area. Possible development initiative in 1985/86.	$ 0	Planning on-going.
Beaverhill Lake	Maintain/enhancement of 62 km² wetland/ agriculture area. Implement Integrated Resource Plan.	$ 0	Planning on-going.
Manawan Lake	Develop project concept. Secure lands. Produce development plan for 1 021-ha lake.	$ 0	Planning on-going.
Peace-Athabasca Delta	Develop management plan for delta area which can exceed 348 029 ha.	$ 0	Planning on-going.
Big Lake	Develop project concept. Secure lands. Produce development plan for 194-ha wetland.	$ 0	Planning on-going.
Bens-Watt	Develop project concept. Secure lands. Produce development plan for 81-ha wetland.	$ 0	Planning on-going.

Table 20
(continued)

Region: Northeast Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
Regional Nest Box Project 1) Cliff Parker Various locations Edmonton area	Twenty boxes placed.	$ 146.00	Completed.
2) Vermilion Elementary School 6-51-6-W4M 1, 2, 3, 4-51-8-W4M	Fifteen nest boxes placed in Vermilion Provincial Park.	$ 35.67	Completed.
3) R. L. Gilmour 64-3-W4M	Ten nest boxes placed around Ethel Lake on 210 ha of deeded land.	$ 44.50	Completed.
4) Win Ferguson Community School Ft. Saskatchewan - Strathcona Nature Centre	Twenty bales placed.	$ 120.71	Completed.
5) Leduc Fish & Game Club	Twenty boxes placed.	$ 125.88	Completed.
Sherwood Park Fish & Game Club Nest Cone Project SE21-50-20-W4M	Eight nest cones placed.	$ 202.50	Completed.
Ft. Saskatchewan Goose Bale Program 54-21-W4M 25-56-23-W4M - Ft. Saskatchewan Fish & Game Club	Eighteen round flax bales placed on seven sloughs.	$ 205.45	Completed.

Table 20
(continued)

Region: Northeast Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
Lamont Fish & Game Club Nesting Structure 9 & 15-56-19-W4M	Six flax bales and six nest cones placed on three sloughs.	$ 369.90	Completed.
Pembina River Fish & Game Club Goose Bale Project Various locations I.D. #17	Five bales placed on four Pembina River oxbows. Five bales placed on five sloughs.	$ 285.00	Completed.
Stony Plain Fish & Game Club Goose Bale Project Four locations - Stony Plain area.	Fifteen bales placed in four sloughs.	$ 1 046.29	Completed.
St. Paul Community Pasture Upland Habitat Development 56-10-W4M - St. Paul Fish and Game Club - Public Lands	Five 2-ha plots broke, fenced and seeded to grasses and legumes. Provide sharptail grouse nesting sites.	$ 7 082.50	Completed.
Akasu Lake Goose Bale Maintenance. 52-13-W4M - Vegreville Fish & Game Club	Repair flax bales.	$ 90.00	Completed.
Stony Plain Fish & Game Club Bird Nesting Box Project Various locations	Three hundred bluebird and 75 ducks nest boxes placed.	$ 2 478.25	Completed.

Table 20
(continued)

Region: Northeast Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
Environment Employment Program Alberta Manpower	11 500 trees planted. 3.6 km of fence constructed. 1.6 km old fence and debris removed. Shelterbelt cultivation. Shelterbelt watering. Fencing completed on six grazing reserve plots.	$ 31 321.13	Completed.
Peace-Athabasca Delta Wetland Restoration/ Enhancement Pilot Project	Artificial recharging of wetlands feasible. Concept application on the entire 2 350-ha Grey Wavey Lake complex appears feasible.	$ 11 895.00	Completed.
North Akasu Lake Island Construction N1/2 35-52-13-W4M - Alberta Transportation	Constructed 0.13 ha-island for waterfowl nesting and loafing from an abandoned road crossing on an unnamed slough.	$ 0	Completed.
Lychak Buck for Wildlife Property 54-7 & 8-W4M - Public Lands	Remove and rebuild 1.2 km of fence. Alberta Environment Center conducted research project on insect control of toadflax. No shrubs received for planting.	$ 1 339.54	Completed.
Rannach (55-11-W4M) and Minburn (48-10-W4M) Community Pastures Upland Habitat Development - Public Lands	Four 2-ha plots on Rannach pasture and four 2-ha plots on Minburn Pasture broke, fireguarded and fenced. Poultry mesh strung on two Rannach plots. Sprint 1986 work schedule: second workup and seeding of all plots, bury poultry mesh in fireguard. Provide upland bird nesting and brooding habitat.	$ 16 779.42	Completed.

Table 20
(continued)

Region: Northeast Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
Mike Matichuk Property Wetland Enhancement NW19-57-15-W4M	Construct 232 meters of level ditching in six segments and 12 earth islands on a 10-ha wetland on private land.	$ 4 860.00	Completed.
Bretona Pond SE33 & SW34-51-23-W4M - County of Strathcona - Edmonton Natural History Society	Provide waterfowl viewing area on a 30-ha wetland near Sherwood Park. County of Strathcona has completed fencing, parking area, walk-way and observation deck.	$ 9 900.00	Completed.
Daysland Buck for Wildlife Wildlife Property Shelterbelt Establishment Wetland Development 15-47-16-W4M	Establish 10 shelterbelts by planting 11 500 trees. Seed 27 ha to grasses and legumes. Remove old fenceline. Develop 18.2 ha of wetland area in cooperation with Ducks Unlimited.	$ 10 697.89	Completed.
Chauvin and District Fish & Game Club Goose Bale Project 42, 43, 44-1-W4M	Place 20 round flax bales on six sloughs to provide Canada Goose nesting sites and create public awareness of wetland habitat.	$ 437.00	Completed.
	(Northeast)	$ 250 587.32	

Table 21
1984/85 FISHERIES BUCK FOR WILDLIFE PROJECTS

Region: Southern Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
McQuillan Reservoir SW13-8-19-W4M - S.M.R.I.D.	Maintain an existing 23-acre rainbow trout fishery. Payment of water fees to the St. Mary River Irrigation District.	$ 1 600.00	On-going.
Stonehill Lake 10-15-17-W4M	Outlet repair and lake drainage to induce winter kill and restore trout fishery on this 103-acre reservoir.	$ 24 220.56	Completed.
Enchant Park Pond NW8-14-18-W4M - B.R.I.D. - Enchant	Create an 8-acre trout pond from an existing slough.	$ 156 600.00	On-going.
Keenex Coulee NW1/4 10-11-24-W4M - Alberta Fish & Wildlife - L.N.I.D. - Alberta Environment	Development of an 8-acre trout pond through the installation of a water supply system c/w fish barrier, on an existing borrow pit.	$ 90 000.00	On-going.
Belly River 18-2-27-W4M	Boulder placement to improve trout habitat in 100 m of stream.	$ 500.00	Project initiation dependent on Alberta Transportation.
McVinnie Reservoir SW33-12-21-W4M	Construction of a 4.9-ha (12-acre) trout pond.	$ 3 166.69	Preliminary design plans prepared. Project on-going.
Gap Pond 8-11-13-W5M - Alberta Forest Service - Alberta Transportation	Improve hiding cover for trout in this stocked, 1-acre trout fishery.	$ 1 061.31	Root bundles and tree structures installed.

Table 21
(continued)

Region: Southern Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
North Drywood Creek Streambank Stabilization NW16-4-30-W4M	Protect 110 feet of eroding streambank through construction of a wooden crib. Part of a larger project funded by Shell Resources.	$ 5 300.00	Completed.
		(Southern) $ 282 448.56	

Table 21
(continued)

Region: Central Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
Carburn Park Pond Within City of Calgary Block 1, Plan 7710815.	Develop rainbow trout fishery as part of gravel pit reclamation. August 31, 1985. Project is approximately 12 acres (4.9 ha).	$ 150 000.00	Completed.
Grainger Reservoir SE24-29-25-W4M	Rehabilitate reservoir to develop and enhance stocked rainbow trout fishery. Provide fisheries access facilities. Project area approximately 102 acres (41.3 ha). Once complete, the reservoir will cover about 25 acres (10.1 ha).	$ 35 000.00	On-going.
Hansen's Reservoir Pt. SE29-38-3-W5M	Rehabilitate reservoir to develop and enhance stocked rainbow trout fishery. Provide fisheries access facilities. Project areas is approximately 23 acres. Once complete, the reservoir will cover only 10 acres.	$ 150 000.00	On-going.
Huber Dam 36-37-13-W4M	Rehabilitate reservoir to develop and enhance stocked rainbow trout fishery. Provide fisheries access facilities. The lake created covers about 16.5 acres.	$ 30 000.00	On-going.
McLaren's Dam 23-33-18-W4M	Rehabilitate reservoir to develop and enhance stocked rainbow trout fishery. Provide fisheries access facilities. The reservoir is about 64.5 acres.	$ 30 000.00	On-going.
Dogpound Creek (South & West of Carstairs, Cremona)	Streambank fence construction to protect and enhance the banks of Dogpound Creek - a provincially important brown trout stream. 10.3 km of fence constructed to protect 5.2 km of stream length.	$ 35 000.00	1985 fence construction completed.

Table 21
(continued)

Region: Central Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
North Raven River	Streambank fence maintenance to protect and enhance the banks of the North Raven River - a provincially important brown and brook trout system. 23.3 km of fence maintained to protect 15.37 km of stream.	$ 420.00	Maintenance completed.
Ware Creek	Streambank fence construction and maintenance to protect and enhance the banks of the Ware Creek - a provincially important "Bow River" rainbow trout spawning and rearing station. 5.1 km of fence maintained and 8.4 km of fence constructed. A total of 6.7 km of stream will be protected by 1986.	$ 30 000.00	Fence construction and maintenance completed.
Three Point Creek	Streambank fence construction to protect and enhance the banks of the Three Point Creek - a provincially important "Bow River" rainbow trout spawning and rearing station. 1.9 km of fence constructed to protect 1.4 km of stream.	$ 10 418.73	Fence construction completed.
Raven River Central	Maintain fences that have been constructed under the Streambank Fencing Program. The Raven is a provincially important brown trout stream. 18.2 km of fence maintained to protect 9.6 km of stream.	$ 3 489.26	Maintenance completed.
Anderson's Dam SW25-28-21-W4M	Fence and spillway maintenance. Maintenance of an existing 1.8 ha (2.8 acres) rainbow trout fishery.	$ 1 000.00	On-going.

Table 21
(continued)

Region: Central Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
Boehlke's Pond NE30 & SE31-35-15-W4M - Alberta Environment - Alberta Agriculture - End-Moor Recreation Board - Boehlke's Fish Pond Committee	Project fence maintenance. Original objective of this project was to enhance an existing pond and create a 14.5-ha (35.9-acre) trout pond.	$ 400.00	Project maintenance completed.
Coronation Pond W1/2 24-36-1-W4M - Alberta Environment - Town of Coronation	Project fence maintenance. Original objective of this project was to create a 16.2 (40-acre) trout pond.	$ 2 500.00	Project maintenance completed.
Kerbes Pond NE19-36-20-W4M - Alberta Environment - Public Lands - Recreation & Parks - Stettler Fish & Game Club - County of Stettler	Fence and spillway maintenance. Original project objective was to protect, maintain and secure access to an existing 3.2-ha (7.8-acre) rainbow trout fishery.	$ 600.00	Completed.
Mirror Reservoir SW29-40-22-W4M - Alberta Environment - Mirror Fish & Game Association - County of Lacombe	Maintenance of water levels and project fences. Original project objective to protect and maintain an existing 4-ha (10-acre) rainbow trout fishery.	$ 255.74	On-going.

Table 21
(continued)

Region: Central Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
Niemela Reservoir SE1-39-3-W5M - Alberta Environment - Sylvan Lake Fish & Game Association	To carry out spillway repairs and maintain an existing 1.9-ha (4.6-acre) rainbow trout fishery.	$ 3 258.00	Spillway repair work
Oyen Reservoir 34-30-4-W4M	To protect and maintain an existing 0.4-ha (1.0-acre) rainbow trout fishery.	$ 149.05	Fence maintenance completed.
South Dickson Trout Pond 35-3-W5M	Completion of pond dyke construction. Overall project objective is to create a 65-ha (160-acre) trout pond adjacent to the Dickson Reservoir.	$ 30 000.00	On-going.
Windsor Lake SW10-42-22-W4M - Alberta Environment - Bashaw Lions Club - Bashaw Recreation Club - County of Camrose	Fence maintenance, weed and brush control. Original project objective was to enhance an existing 14.05-ha (34.7-acre) rainbow trout fishery.	$ 1 000.00	Maintenance completed.
	(Central)	$ 513 490.78	

Table 21
(continued)

Region: East Slopes Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
Annual Project Maintenance - Various locations	Inspection and/or maintenance of existing Buck for Wildlife projects region-wide, including streambank fences, dams, weirs, spillways, fish barriers and headgates.	$ 7 200.00	On-going.
Buck for Wildlife Project Signage - Various locations	Painting and installing various Buck for Wildlife signs at all existing projects.	$ 3 500.00	On-going.
Prairie Creek - Haagsma SW4-38-7-W5M	0.8 km of streambank fence constructed to exclude livestock from 0.6 km of creek.	$ 5 200.00	Fence is completed (September, 1985).
Prairie Creek - Qually SE4-38-7-W5M	0.4 km fencing of streambanks constructed to protect 0.4 km of stream from livestock.	$ 2 800.00	Fence is completed (September, 1985).
Prairie Creek - Wedman SW19-37-7-W5M	Installation of power to water well. Minor fence construction and vehicle ford improvements.	$ 7 535.00	Completed.
Raven River - Oliver Lease NW19-37-7-W5M	2.1 km of streambank fence will be constructed to protect 1.6 km of stream.	$ 17 000.00	On-going.
Vetch Creek - Gray Lease SW29-37-8-W5M	0.6 km of streambank fence will be constructed to protect 0.7 km of stream.	$ 4 100.00	Completed (October, 1985).
Vetch Creek - Crown 1/4 SW29-37-8-W5M	1.2 km of streambank fence will be constructed to protect 1.2 km of stream.	$ 17 000.00	On-going.

Table 21
(continued)

Region: East Slopes Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
Vetch Creek - Southfork Allotment NW19-37-8-W5M	1.0 km of streambank fence will be constructed to protect 1.0 km of stream.	$ 17 000.00	On-going.
Allen Bill Pond 30-22-5-W5M - Trout Unlimited (Bow River Chapter)	To provide trout hiding cover for this recently excavated pond.	$ 1 130.00	Completed.
Forgetmenot Pond Enhancement 24-21-7-W5M - Trout Unlimited (Bow River Chapter)	To provide fish cover for stocked trout.	$ 1 950.00	On-going.
Crowsnest River Enhancement 3 & 9-8-5-W5M - Hillcrest Fish & Game (Alberta Fish & Game Project)	Place meter sized boulders to enhance fish habitat in previously channeled section of the Crowsnest River. Will enhance carrying capacity for rainbow trout and mountain whitefish.	$ 10 600.00	Completed.
Elk Creek Pond LSD 14-33-35-17-W5M - Alberta Environment - Alberta Transportation - Alberta Forest Service	Create a 1.0-ha (2.5-acre) trout pond.	$ 4 011.95	Completed.
Rummell Lake Spawning Habitat Development 3-22-10-W5M - Trout Unlimited (Bow River Chapter)	Increase recruitment of cutthroat trout in the lake to provide for additional angling.	$ 4 495.00	Completed.

Table 21
(continued)

Region: East Slopes Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
Beaver Lake 16-35-6-W5M	Lakeshore fence construction to protect water quality from livestock impact.	$ 1 000.00	Fence maintenance completed.
North Raven River - Bell SE9-37-5-W5M	Construction of dugout and surrounding fence.	$ 2 200.00	Completed.
Elbow Lake Enrichment 26-19-8-W5M - Trout Unlimited (Bow River Chapter)	5,500 kg of non-treated wheat spread via helicopter into Elbow Lake, to enhance productivity of invertebrates and ultimately increase growth rates of eastern brook trout.	$ 3 125.89	On-going.
	(East Slopes)	$ 109 847.84	

Table 21
(continued)

Region: Peace River Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
Valleyview Trout Pond Within Town of Valleyview SE21-70-22-W5M - Valleyview Fish & Game Association - Town of Valleyview	Create a trout pond within the Town of Valleyview. Pond approximately one acre.	$ 2 100.00	Completed.
Dollar Lake 18-73-21-W5M - Alberta Fish & Wildlife	Install power and aeration system to over-winter stocked trout. Lake 10 acres.	$ 2 500.00	On-going.
Weberville Trout Pond NW7-85-21-W5M - Alberta Fish & Wildlife - Alberta Environment	Construct a 3-acre fish pond c/w spawning beds. Public has asked for this for several years. Stocked date to be May, 1986.	$ 2 200.00	On-going.
Hilltop Lake Aeration 29-75-7-W6M - Peace Country Flyfishers Association	Aerate Hilltop Lake to allow stocked rainbow trout to overwinter.	$ 4 763.00	On-going.
Moonshine Lake Aeration 30-79-8-W6M - Provincial Parks	Aerate a stocked lake to prevent winterkill. Provincial Parks are implementing project.	$ 0	On-going.

Table 21
(continued)

Region: Peace River Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
Poirier Trout Farm 79-23-W5M - Mr. Poirier	Aerate a stocked pond to prevent winterkill. Landowner supplies and maintains equipment.	$ 120.00	On-going.
	(Peace River)	$ 11 683.00	

Table 21
(continued)

Region: Northeast Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
Highway 16 - Lloydminster Pond - Alberta Environment	Locate suitable site and develop a 4-ha pond for trout stocking in the Lloydminster area. Large urban population without access to local fishery.	$ 50 000.00	On-going.
Ernestina Lake Shoreline Fencing N1/2 31-60-3-W4M NW36-60-4-W4M - Public Lands - Grazing Lessee	To construct 2.4 km of 4-strand barbed wire fence and one stock watering dugout to retain 3.2 km of shoreline habitat on 320-ha pike lake.	$ 5 950.00	On-going.
Namepi Creek Tributary Reservoir: Inlet Ditch Resoiling.	Fill in non-functioning inlet ditch to allow landowner access.	$ 1 600.00	Completed.
Lamont Pond SW27-55-19-W4M - Lamont Fish & Game Club - Town of Lamont - Alberta Environment	Development of a stocked trout reservoir. Surface area of reservoir is 4.5 ha (11 acres).	$ 18 620.00	Completed.
Jackfish Lake 20-53-9-W4M - Innisfree Fish & Game Club - County of Two Hills	Aeration of Jackfish Lake to prevent winterkill of stocked trout. This 79-ha lake provided a very popular rainbow trout fishery until it began to winterkill on an annual basis over the last several years.	$ 38 303.26	On-going.

Table 21
(continued)

Region: Northeast Project/Location Agencies Involved	Objectives/ Benefits Target Dates	1985/86 Anticipated Expenditures	Status or Comments
Upper Mann Lake Shoreline Fencing E1/2 6-60-10-W4M NW31-59-10-W4M - Public Lands - Grazing Lessee	Shoreline fence construction to protect 3 km of shoreline and 48.5 ha of riparian habitat adjacent to 600-ha pike/walleye lake.	$ 3 547.20	Fence construction completed.
	(Northeast)	$ 118 020.46	

7. PUBLIC INFORMATION AND EXTENSION SERVICES

The Public Information and Extension Branch is made up of three essential elements: public information, conservation education and extension services. Branch staff promote management policies and programs, with special emphasis on conservation and hunter education. The Branch serves as the main link for the Division to the Bureau of Public Affairs in handling press releases, printing, advertising special events and related public relations activities.

In 1985 the Branch maintained its commitments with the preparation of regulation summaries, public presentations, brochure and display development, and acknowledgment of numerous telephone and written public inquiries. Close liaison continued with the Alberta Fish and Game Association and other private sportsmen's clubs, school groups and other government agencies such as the Alberta Forest Service, Alberta Agriculture 4-H and Solicitor General, to foster an understanding and appreciation of the Fish and Wildlife Division.

7.1 Public Information

During 1985 the public information phone line received an average of 50 calls daily. Public requests covered a wide range of topics and changed seasonally -- special licence and authorization draws, in August-September; pheasant release, in October; Pheasant release and the Strathcona hunt, in November; and the Strathcona deer hunt in December.

Again in 1984/85, requests for the Division's printed materials increased. Written requests average 10 letters per day, with as many as 25 information packages going out in a day.

7.2 Conservation Education

Project WILD is an environmental education program designed to emphasize information about and appreciation of wildlife. The Alberta program of Project WILD expanded to 43 workshops from last year's 17. The majority of people attending workshops are elementary school teachers. However, community groups such as Girl Guides, Boy Scouts and Junior Forest Wardens continue to be involved. Officers of the Conservation Hunter Education Unit are actively involved in expanding the role of Project WILD with numerous groups. A facilitator's workshop trained 37 more instructors. Through the Canadian Wildlife Federation, the first annual conference of provincial coordinators of Project WILD was held in Ottawa. Representatives from seven provinces and one territory participated, with Alberta playing a lead role in orienting the other provinces to the implementation of WILD. The Alberta program is getting considerable attention from other jurisdictions.

An introductory information brochure on Project WILD is available. In addition, forty-four kits of wildlife artifacts supporting four WILD activities were distributed to the regions to be made available to teachers.

The third film on Alberta Bighorn Sheep was completed as part of a 4-part series with CBC Edmonton. This film features the management and life history of Alberta bighorns and their interaction with man. The film will be released in the spring of 1986.

The peregrine falcon program continued in Calgary and Edmonton. Nests on the A.G.T. buildings were monitored by T.V. and interpretive talks were given. A special orientation program for the interpreters included a field trip to the Wainwright breeding facility. Close liaison was maintained with biologists Gary Erickson and John Folinsbee. Media coverage was good.

Currently, other wildlife education projects include the Blackfoot Grazing Reserve, an Endangered Species Information workshop at the Provincial Museum, the opening of the cold Lake Fish Hatchery, and the upgrading of

exhibits at the Sam Livingston Fish Hatchery, the building of bird boxes and feeders by the Edmonton Nature Centres Foundation and the production of interpretation materials in Kananaskis Country. Assistance has been provided to Alberta Environmental Education Network.

The Alberta Conservation Hunter Education program involved 9 000 students in 1985. Of these, upwards of 6 000 attended the camp program. In fact, the existing camps provided more benefit to an increasing number of groups. The McKinnon Resource Education Centre on the Bow River east of Calgary was added to the facilities available to Albertans. The McKinnon site combines an excellent access point for fishermen as well as a hunter education facility now under development.

Twenty-one courses for instructor upgrading were held to meet the needs of both the public and division. In addition, 27 instructor workshops were conducted. In-service workshops for officers and biological staff were performed in conjunction with staff development programs.

A highlight of the year was the National Rifle Association (NRA) Academy held in August at the Forest Technology School at Hinton. International certificates were awarded to 230 Alberta instructors. In addition, a growing cadre of "AA" instructors participated in this Academy. Currently, there are 50 "AA" instructors ready for the new program initiatives. Work commenced on a fishing education program, complete with a manual which will be a sequel to the current hunter education program.

Administratively the conservation hunter education unit has been re-structured to reflect an expanded role of working with volunteers, mostly from the Alberta Fish & Game Association, to share the delivery and obligations of the program. Significant levels of cooperation have been given by these volunteers. The Fish and Wildlife Division is very appreciative of this assistance and thanks the many Alberta Fish and Game Association people who are involved and will play the principal role in expanding the program in 1986.

7.3 Extension Services

Wildlife Week was celebrated throughout the province during the second week of April. Over 8 000 kits were mailed to Alberta schools. The annual poster contest was changed to a non-competitive show to conform with Alberta Culture's guidelines on children's art events. Following an enthusiastic involvement, a selection of 100 entries, chosen by a jury of art and wildlife educators, was displayed at the Provincial Museum during a three-day Wildlife Week festival. Poster show prizes included guided trips in the field with Fish and Wildlife staff. At the Provincial Museum, 8 000 people attended the Wildlife Week festival. In addition, five regional offices conducted programs which included displays at shopping centres and classroom visits by officers, complete with various contests and draws.

The USE RESPECT access program continued to yield positive benefits to both the recreationist and landholder. Alberta Agriculture 4-H personnel assisted in a pilot program to visit landholders in two designated areas. Upwards of 4 000 farms and ranches were visited by the 4-H people. In addition, numerous Fish and Game clubs in southern Alberta continued active programs which have resulted in more lands being available to recreationists if permission is requested before entry.

Further expansion and involvement of Alberta Fish and Game clubs in association with 4-H clubs is contemplated in 1986. Through the USE RESPECT initiatives an easing of tensions regarding access-trespass is anticipated. Part of this expansion involves numerous high-profile displays available to Fish and Game clubs on a loan basis from Fish and Wildlife.

Most noteworthy of special events was the annual Bighorn Awards banquet to recognize individuals, associations and corporations making significant contributions to fish and wildlife resource conservation in Alberta. This successful event was honored by the presence of the Honorable Don Getty, Premier of Alberta.

Promotional activities such as displays and public events were shared with the Department's Information Centre and with the Alberta Fish and Game

Association, Alberta Forest Service, Canadian Wildlife Service and the Royal Canadian Mounted Police.

The Alberta Conservation and Hunter Education program involved 11 000 individuals with 5 000 students attending outdoor camps at Narrow Lake and Alford Lake. OVer 700 volunteer instructors presented this program with a continuing effort to share more of the program with the private sector, particularly the Fish and Game Association.

8. ENFORCEMENT - FIELD SERVICES

Once again the past year has been an active one for the Enforcement-Field Services Branch. The addition of a toll-free 1-800 number to the updated Outdoor Observer Program has increased its accessibility and effectiveness.

New staff training courses have been added to the Division's calendar. Development of the regulations package required by the new Wildlife Act is now nearing completion.

Applications for possession of found dead wildlife are now received and processed at regional offices.

8.1 Standards and Procedures

This section is responsible for the development of Enforcement -- Field Services programs, procedures and standards. It also evaluates and monitors the cost effectiveness of all operational programs. Programs include nuisance wildlife, enforcement, wildlife damage, Outdoor Observer and staff training.

Outdoor Observer The Outdoor Observer Program was introduced in 1974 in response to a growing demand by the public to become more involved with the fish and wildlife resources and its management.

The program was expanded in 1985 by the addition of a 1-800 telephone number. This toll-free number provided easier access to the program, resulting in increased effectiveness.

The telephone number (1-800-642-3800) is monitored 24 hours a day, seven days a week. Callers may remain anonymous and all information is kept confidential.

As of December 16, 1985 a total of 254 calls had been received, of which 140 reported illegal hunting activities. Approximately 20 percent of the calls resulted in prosecution.

Problem Wildlife Effective June 19, 1985, a Dangerous Bear Policy was adopted providing for the formation of Bear Response Teams to react to serious bear incidents. Five Response Team leaders were identified from Fish and Wildlife Officer staff. Equipment kits were assembled and located at Pincher Creek, Rocky Mountain House, Edson, Grande Prairie and Lac La Biche.

Five dangerous bear incidents were handled by Bear Response Teams this year. Two of these involved human injury from attack, while the others posed the threat of injury.

All of these incidents were successfully resolved.

Native Liaison The position of Native Liaison Officer was created in January of 1985, in response to a need identified by senior Fish and Wildlife administrators.

The purpose of this position is to establish and maintain communication links between the Fish and Wildlife Division and the Native community in Alberta.

Assistance will be provided to Native groups and individuals in dealing with the Fish and Wildlife Division at any level.

Meetings with Indian and Metis groups were held at Jean D'Or Prairie, Tall Cree, Grande Cache, Nose Creek, Wildwood, Keheewin and Saddle Lake.

A number of concerns expressed by Natives relating to the Fish and Wildlife Division were investigated and resolved.

Training Two hundred and eighty-seven Fish and Wildlife employees participated in the 16 training courses held in 1985.

Courses offered included:

- Arrest and Control Tactics
- Firearms Training
- Explosives
- Problem Wildlife
- All Terrain Cycle
- Water Safety and Small Vessels
- Drug Immobilization
- Waterfowl Diseases
- Electrofishing - Crew Leaders

Wildlife Support Program Under this program compensation is provided for livestock shot during an open hunting season. In 1985, twenty-eight applications were received requesting compensation. Fourteen were approved for payment, four were rejected and ten are pending.

Fur Tax This section is also responsible for collecting the fur tax on approximately 90 percent of the total fur production in Alberta. As of December 15, 1985, $35 565.79 was collected and deposited into the Fish and Wildlife Trust Fund.

Special Investigation Unit During the year 1985, the Special Investigations Unit of the Enforcement Section of the Fish and Wildlife Division continued to adapt and grow with changing conditions related to the commercialization of the fish and wildlife resources.

Prosecution of the majority of the 78 individuals charged with trafficking in fish caught under domestic net fishing licences in 1984 was held back while several test cases were taken through the various court levels. The Supreme Court of Canada reaffirmed the province's right to restrict and regulate the sale of this resource. As a result, the remaining charges will now be processed.

The Unit is also a participant in a major ongoing investigation with the R.C.M.P. in Alberta and Saskatchewan, Edmonton City Police, the Saskatchewan Division of Natural Resources, B.C. Fish and Wildlife Division, the U.S. Fish and Wildlife Service and a number of state agencies. The Unit's activities in this investigation are directed toward

illegal activities focusing on the acquisition and movement of big game trophies out of Alberta. To date, a total of 40 charges have been laid by this Division. Other participating agencies have laid or are in the process of laying a number of related charges. These include such offences as hunting with the use of an aircraft, hunting out of season, trafficking in wildlife, illegal possession and hunting after dark.

A number of independent investigations were also undertaken into the various aspects of wildlife commercialization. Fourteen investigation were begun, three of which will continue into the next year.

8.2 Forensic Science Unit

Between April 1, 1985 and December 16, 1985, the Forensic Unit received 98 cases for analysis. In addition to cases analysed for Alberta Fish and Wildlife, the Unit has assisted the following agencies and jurisdictions: various other government agencies, Canadian Wildlife Service, National Parks, R.C.M.P., British Columbia, Saskatchewan, Manitoba, Northwest Territories and the Yukon Territories.

The Unit has continued to expand its capabilities and knowledge and data base in the following areas: species identification, time of death determination, and sex and species determination. Reference collections of hair, feathers and bones were expanded.

8.3 Regulations Unit

The two-man Regulations Unit was primarily occupied with rewriting regulations in preparation for proclamation of the new Wildlife Act. A revision of the Alberta Fishery Regulations was also commenced.

The Unit continued to provide necessary services such as preparation of amendments to existing regulations (both federal and provincial), liaison

between field staff and solicitors and liaison with other resource agencies throughout Canada and the United States.

The Department's responsibilities with respect to the Alberta Boat Safety Check Committee were also met by the Unit.

8.4 Summary of Fish and Wildlife Enforcement Activities - 1985

Tables 22 to 29 summarize Fish and Wildlife enforcement activities initiated between April 1 and December 15, 1985.

Table 22 summarizes the types of prosecutions handled to December 15, 1985.

Table 23 indicates the types of prosecutions processed by act and regulation. Violations under the Wildlife Act and Alberta Fishery Regulations accounted for 58.8 percent of the detected violations.

Table 24 identifies those cases under the Wildlife Act where convictions have been obtained.

Table 25 indicates the pleas entered for all cases. In the 2 120 cases concluded, 94.7 percent of the accused admitted guilt either by pleading guilty in court or by voluntarily paying tickets. In 1984, 97.8 percent entered guilty pleas.

Table 26 summarizes the convictions resulting in licence suspensions. Of the cases concluded to date, 98 resulted in licence suspensions.

Table 27 illustrates the age breakdown of hunters required to take the compulsory hunter training test. Hunters in the 30-34 age group were the most frequent violators of regulations. It is interesting to note that in 1984 the 20-24 age group was most frequently required to take the hunter training test.

Table 28 indicates the age group and the freqvency of violations for each in wildlife, fisheries and other violations.

Table 29 indicates the occupations of violators against wildlife, fisheries and other statutes. Once again labor and trades were the largest groups of violators.

Table 30 is a breakdown of all occurrences received to date.

TABLE 22

TYPES OF PROSECUTION

Type	Frequency	Percent
Wildlife		
Big Game	267	7.91
Upland Bird	62	1.84
Migratory Bird	56	1.66
Miscellaneous Wildlife	601	17.80
Subtotal	986	29.21
Fisheries	1 203	35.64
Other		
Liquor Control Act	544	16.12
Small Vessels Regulations	144	4.27
Off-highway Vehicle Act/Regulations	227	6.73
Highway Traffic/Motor Vehicle	39	1.16
Criminal Code of Canada	44	1.30
Litter Act	31	.92
Miscellaneous	157	4.65
Subtotal	1 186	35.15
Total	3 375	100.00

NOTE: Includes all prosecutions concluded and still pending as of December 10, 1985. As of this date there are 705 prosecutions to be entered into the master file.

TABLE 23

PROSECUTION BREAKDOWN BY ACT

Act	Frequency	Percent
Alberta Fishery Regulations	1 175	34.80
Wildlife Act	811	24.03
Liquor Control Act	544	16.12
Small Vessels Regulations	144	4.27
Off-highway Vehicle Act/Regulations	227	6.73
Game Hunting Regulations	111	3.29
Migratory Birds Convention Act/Regulations	56	1.66
Other	307	9.10
Total	3 375	100.00

TABLE 24

COMMON PROSECUTIONS UNDER THE WILDLIFE ACT

Section		Frequency	Percent
18	No licence	87	10.73
19	Unauthorized times	117	14.43
20	Illegal possession	60	7.40
24(2)	Occupied land	51	6.29
29(1)	Loaded firearm	173	21.33
46(1)	Fail to carry licence/tags	107	13.19
Other		216	26.63
Total		811	100.00

TABLE 25

PLEAS ENTERED FOR CHARGES AND DISPOSITION OF CHARGES

Plea	Frequency	Percent
Guilty	399	11.82
Not Guilty	38	1.12
Voluntary Ticket	1 592	47.17
Unknown	91	2.70
Pending	1 255	37.19
Total	3 375	100.00

Disposition	Frequency	Percent
Guilty	2 008	59.50
Not Guilty	7	.21
Withdrawn	97	2.87
Dismissed	8	.23
Pending	1 255	37.19
Total	3 375	100.00

TABLE 26

CONVICTIONS RESULTING IN LICENCE SUSPENSION

Type of Suspension	Frequency	Average Fine ($)	Average Age
Big Game*	59	264.15	36.61
Bird Game*	21	58.57	31.14
Migratory Bird	12	48.33	31.80
Fur/Other	6	137.50	31.33
Fisheries	0	0.00	0.00
Total	98	185.91	34.35

TABLE 27

AGE BREAKDOWN OF OFFENDERS REQUIRED TO TAKE HUNTER TEST

Age (Years)	Big Game		Bird Game		Total	
	Freq.	Pct.	Freq.	Pct.	Freq.	Pct.
Under 20	3	6.12	1	4.77	4	5.71
20 - 24	4	8.16	5	23.81	9	12.86
25 - 29	5	10.21	6	28.57	11	15.71
30 - 34	10	20.41	3	14.28	13	18.58
35 - 39	11	22.45	1	4.77	12	17.14
40 - 44	4	8.16	3	14.28	7	10.00
45 and over	12	24.49	2	9.52	14	20.00
Total	49	100.00	21	100.00	70	100.00

TABLE 28

AGE BREAKDOWN FOR ALL CONVICTIONS

Age (Years)	Big Game		Bird Game		Total	
	Freq.	Pct.	Freq.	Pct.	Freq.	Pct.
15 and under	1	1.47	2	5.41	3	2.86
16 - 19	4	5.88	4	10.81	8	7.62
20 - 24	9	13.24	5	13.51	14	13.33
25 - 29	11	16.18	12	32.43	23	21.90
30 - 34	13	19.12	5	13.51	18	17.14
35 - 39	10	14.71	3	8.11	13	12.38
40 - 44	7	10.29	2	5.41	9	8.58
45 - 49	2	2.94	2	5.41	4	3.81
50 - 54	6	8.82	1	2.70	7	6.67
55 - 59	3	4.41	1	2.70	4	3.81
60 and over	2	2.94	0	0.00	2	1.90
Total	68	100.00	37	100.00	105	100.00

TABLE 29

OCCUPATIONAL BREAKDOWN FOR ALL CONVICTIONS

Occupation	Wildlife		Fisheries		Other		Total	
	Freq.	Pct.	Freq.	Pct.	Freq.	Pct.	Freq.	Pct.
Professional	10	3.16	43	4.89	19	2.91	72	3.89
Managerial	10	3.16	29	3.29	29	4.43	68	3.68
Contracting	3	.95	5	.57	0	0.00	8	.43
Farming	21	6.64	19	2.16	34	5.20	74	4.00
Trades	74	23.42	120	13.64	129	19.72	323	17.46
Transportation	5	1.58	12	1.36	9	1.38	26	1.41
Services	27	8.54	108	12.27	68	10.40	203	10.97
Sales	3	.95	16	1.82	16	2.45	35	1.89
Operative	23	7.28	48	5.45	42	6.42	113	6.11
Armed Forces	5	1.58	4	.45	3	.46	12	.65
Clerical	0	0.00	23	2.62	5	.76	28	1.51
Labor	35	11.08	125	14.20	112	17.13	272	14.70
Homemaker	3	.95	23	2.62	2	.31	28	1.51
Student	16	5.06	44	5.00	33	5.04	93	5.03
Retired	4	1.27	17	1.93	3	.46	24	1.30
Unemployed	20	6.23	117	13.29	47	7.19	184	9.95
Miscellaneous	25	7.92	40	4.55	37	5.66	102	5.51
Unknown	32	10.13	87	9.89	66	10.08	185	10.00
Total	316	100.00	880	100.00	654	100.00	1 850	100.0

TABLE 30

SUMMARY OF OCCURRENCES

	Frequency	Percent
Problem Wildlife		
Beaver	2 692	15.05
Black Bear	1 194	6.68
Grizzly Bear	81	.45
Wolf	97	.54
Fox	57	.32
Coyote	219	1.22
Cougar	39	.22
Skunk	628	3.51
Migratory Bird	505	2.82
Deer	328	1.83
Elk	80	.44
Moose	34	.19
Other Ungulates	24	.13
Other Mammals	152	.85
Raptors	54	.30
Other	1 017	5.69
Subtotal	7 201	40.24
Found Wildlife		
Road Kills	1 629	9.10
Diseased/Injured	1 458	8.15
Found Dead Wildlife/ Application to Keep	1 419	7.93
Other Found Dead Wildlife	391	2.19
Other Found Wildlife	1 070	5.98
Subtotal	5 967	33.35

(Continued)

TABLE 30

SUMMARY OF OCCURRENCES
(CONTINUED)

	Frequency	Percent
Enforcement		
Environmental	298	1.66
Night Hunting	270	1.51
Other Unauthorized Hunting	692	3.87
Closed Season	966	5.40
Licencing	214	1.20
Trespass	123	.69
Trafficking	115	.64
Illegal Possession	298	1.66
Other Enforcement	526	2.94
Subtotal	3 502	19.57
Other Occurrences		
Native Harvest	94	.53
Miscellaneous	1 129	6.31
Subtotal	1 223	6.84
Total	17 893	100.00